BEST PRACTICES

**INTERNAL QUALITY ASSURANCE CELL,
DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE, NAGPUR-
440033**

2017-18 To 2021-22

CERTIFICATE

This is to certify that, the Number of Best practices as hosted on the Institutional website during last five years under Criterion-VII (7.2.1) are as follows:

Sr. No.	Year	Number of Best Practices Conducted
1.	2021-22	24
2.	2020-21	11
3.	2019-20	19
4.	2018-19	16
5.	2017-18	14
	TOTAL	**84**

AKHILESH VASANTRAO PESHWE

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Dr. Akhilesh Peshwe

Principal

DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE,
North Ambazari Road, Near Ambazari Lake, Nagpur

NAAC ACCREDITED GRADE 'A' WITH CGPA 3.01 (Third Cycle)

CRITERION-VII

Institutional Values and Best Practices

YEAR-1
2021-22

7.2.1

Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual during the years 2021-22

SSR: 2023 FOR NAAC FOURTH CYCLE

DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE, NAGPUR

7.2.1

Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual during the years 2021-22

LIST OF ACTIVITIES 2021-22

Sr. No	Title of the Best Practice	Name of Department or Committee	Name of the In-charge
1.	Maintenance through MCVC (PTCI	Minimum Competency and Vocational Course Department	Mr. Atul Moghe
2.	Blood Donation	National Service Scheme (NSS)	Dr. Pitambar Humane
3.	YouTube Channel BO|ANY 4U: An Online Platform for the students of life sciences	Department of Botany	Dr. Pitambar Humane
4.	Covid-19 Vaccination	Department of Botany	Dr. Pitambar Humane
5.	The Study of floristic biodiversity	Department of Botany	Dr. Pitambar Humane
6.	Tree Plantation	National Service Scheme (NSS)	Dr. Pitambar Humane
7.	Publication of Departmental Magazine, "PEARLS"	Department of Chemistry	Dr. Vaishali P. Meshram
8.	IIT Spoken Tutorial Certificate Course	Department of Computer Science	Dr. Mrs, Snehal Narale
9.	One Day Workshop on "Writing Scientilic Research Article/Paper"	Department of Computer Science	Dr. Mrs, Snehal Narale

10.	Scrap Book Making: Five Stars of India	Department of English	Dr. Mrs. Shraddha Deshpande
11.	Poster Making Activity	Department of English	Dr. Mrs. Shraddha Deshpande
12.	Development of Online Portal for the submission of Assignments and Conducting Online Test Examinations	Department of Computer Science	Mrs. Ruma Rahul Kapre
13.	E Poster (Digital Poster) Making on, Artificial intelligence, Speech and image Processing and Cloud Computing	Department of Computer Science	Mrs. Ruma Rahul Kapre
14.	Conduct of a survey of non-communicable diseases and their risk factors among adults in Nagpur	Department of Home Science	Mrs. Meghna Pandit
15.	Project Melghat: A social Responsibility	lqAC, Dharampeth MPDM Science College & Bharat Vikas Parishad, Nagpur	Mrs. M. M. Deshpande
16.	Disposal of biomedical waste generated in the microbiology laboratory.	Microbiology	Dr. Mrs. Vidya Kathoke
17.	Workshop on Plastic Recycle and Reuse	Physics	Lt. Dr. Prashant Ambekar & Dr. Seema Ubale
18.	Vermicomposting and Verm culturing by using green waste and Nirmalya collection	Zoology	Dr. K. M. Paturkar

19.	Artificial bird nests installation inside the college campus.	Zoology	Dr. K. M. Paturkar
20.	Solid waste management by vermicomposting	Zoology	Dr. K. M. Paturkar
21.	Fresh water fish culturing	Zoology	Dr. K. M. Paturkar
22.	Dragonfly rearing	Zoology	Dr. K. M. Paturkar
23.	Solid waste management by vermicomposting	Zoology	Dr. K. M. Paturkar
24.	Installation of Artificial beehive in the	Zoology	Dr. K. M. Paturkar

Prof. Pitambar Humane
IQAC Coordinator

Dr. Akhilesh Peshwe
Principal

- ➤ Name of the Department : **Maintenance Department**
- ➤ Name of Teacher In-charge : **Mr. Atul Moghe**
- ➤ Session of Implementation : **2021-22**
  (Highly internalized at least 15-year-old practice)
- ➤ Name of the Class for which the **Best practice offers services to all the**
  Best Practice was conducted : **departments and entire premises of the institution.**
- ➤ Number of students benefitted : **All the students get benefit of maintenance services**

1. **Title of the Practice** : **Maintenance through MCVC (PTC)**

2. **Objectives of the Practice** :
   - To minimize maintenance cost of the institutions
   - Hands on practice and skill improvement
   - Entrepreneurship Development Opportunities for Students

3. **The Context** :
   Maintenance cost of equipment and gadgets in all the departments was quite much. Labor is always expensive. Reducing this cost was one of the top most priority of the institution hence this practice started long time back. We were required to provide opportunity for students to gain experience and develop their skills so that they go out of the college with confidence.

4. **The Practice** :
   The Maintenance Department of the institution renders its services to all the departments of the institution and attends breakdown in the power supply or electricity related issues. The department attempts to resolve the campus issues innovatively and creatively. The motion sensitive sensors developed by the department are used in the wash areas and toilets. Winding of all the fans is done in the maintenance departments. LED tube lights/bulbs; solar system maintenance

5. **Evidence of Success** :
   One of the best practices of this department is that the department *assembles* brand new computers using branded parts saving at least Rs. 5000/- per assembly of the machine. *80*

% machines of our institution have been assembled by the Maintenance Department. Maintenance of electrical fixtures, wiring, solar system etc. is done through the department. Department has developed a patent. Department has installed motion sensitive device for toilets and wash areas. Major contribution in saving revenue on maintenance.

6. **Problems Encountered and**
    Resources Required   :
    Less staff for maintenance department. All the issues of maintenance cannot be handled; hence some AMC are always required.

7. **Notes (Optional)**   :
    Honorable Peer Team Members of the 3rd Cycle appreciated the contribution of Maintenance Department.

(Mr. Atul Moghe)
Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator
CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe

Principal
PRINCIPAL
Dharampeth M. P. Deo Memorial
Science College, Nagpur.

➤ Name of the Department	:	National Service Scheme (NSS)
➤ Name of Teacher In-charge	:	Dr. Pitambar Humane
➤ Session of Implementation	:	2021-22
➤ Name of the Class for which the Best Practice was conducted :		NSS Volunteers
➤ Number of students benefitted	:	NSS Volunteers

1. **Title of the Practice** : **Blood Donation**

2. **Objectives of the Practice** :
   - Organization of blood donation camp in memory of Late. Vinayakrao Phatak, on 8th August in every year as well as during the NSS Camp in villages.
   - To inculcate the importance and need of blood donation as a social responsibility
   - To take care the supply of blood to every needy person in the society in emergency. Organization of rallies to spread the awareness about the blood donation benefits and its future prospects.

3. **The Context** :
   - . Blood and blood components are not generated in the laboratory and hence it must be donated by the individual
   - Many misconceptions among the society which leads to collection of less amount of blood
   - Inability to fulfill the need of blood for different patients by existing blood banks

4. **The Practice** :
   - Organization of blood donation camp in memory of Late Vinayakrao Phatak in the institute, making this practice frequent repetition every year
   - The blood is collected by Hedgewar Blood Bank during the blood donation camp and certificates are given to every donor.
   - Many students after knowing the importance of blood donation, come forward to donate the blood, this helps them to understand the importance of blood donation and social responsibility.
   - Since last many years, this practice made 1000s units of blood were collected during the camp, that definitely helped the society to save the lives.

5. **Evidence of Success** :
   - The list of blood donors and geotag photographs are preserved with NSS Unit of the college.
   - Also, the list of blood donors from the blood donation camp is available with

Hedgewar Blood Bank

- The collected blood was used to save the many lives through Hedgewar Blood Bank.

**6.   Problems Encountered and
      Resources Required   :**

- Though there is urgent need of blood to the society in every medical emergency, there is crunch of blood in blood banks, because of a smaller number of blood donors.
- Misconceptions about the blood donation and its importance is one of the most important reasons responsible for availability of a smaller number of blood donors
- Spreading awareness among masses is very much important to overcome this problem in future.

7.   Notes (Optional)   :

- If this practice is undertaken by every institute through its NSS Unit, every year, then definitely the collection of blood will be drastically increased. Also, this will help to overcome the misconception among the society as well as to enhance to blood donors in near future.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator

CO ORDINATOR
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DHARAMPETH, M. P. DEO MEMORIAL &
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Dr. Akhilesh V. Peshwe

Principal

Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

- ➤ **Name of the Department**   :   **Department of Botany**
- ➤ **Name of Teacher In-charge**   :   **Dr. Pitambar Humane**
- ➤ **Session of Implementation**   :   **2021-22**
- ➤ **Name of the Class for which the**   **B. Sc. Sem-III**
  Best Practice was conducted :
- ➤ **Number of students benefitted**   :   **B. Sc. Sem-III**

1.   **Title of the Practice**   :

YouTube Channel *BOTANY 4U: An Online Platform for the students of life sciences*
https://www.youtube.com/channel/UCIwRosA7_WlILkNtlmYME2A

2.   **Objectives of the Practice**   :

- To make the online lectures available based on syllabi of UG, PG and NET/SET in life sciences.

- To assist the stakeholders in life sciences of India and abroad during Covid-19 pandemic

- To assist stakeholders in life sciences for career opportunities in life science in India and abroad.

- To assist the stakeholders in life sciences for literature

3.   **The Context**   :

- In covid-19 pandemic it was very difficult to teach the students as online teaching was new to everyone. Even the students were not able to access the online classes due to poor network. The YouTube Channel help to overcome this problem.

- In teaching learning process there is lack of tricks because of this the students are unable to remind the topics easily, the lectures which are made available are mostly based on tricks and easy to understand for preparation of examination.

4.   **The Practice**   :

- Initially the programs were organized and experts from India and abroad are requested to deliver lectures on various topics of life sciences as well as career opportunities and personality development.

- Many online workshops were organized specially based on the syllabus of

CSIR-UGC-NET from the qualified and expert teachers from various parts of the globe.

- Syllabus oriented subjective and objective based lecture made available for the students of UG, PG and even to the students preparing for CSIR-UGC-NET in life sciences

5. **Evidence of Success** :

- More than 325 video lectures are made available on YouTube Channel BOTANY 4U and can be easily access with the help of above link or QR Code.

- More than 10,000 students are registered with the help of google form

- Online MCQs based examinations were conducted for the students of different university in Covid-19 pandemics

- More than 3,000 stakeholders are associated with this platform through Telegram Group

6. **Problems Encountered and Resources Required:**

- Restricted access to the resources physically during Covid-19 pandemic.

- Unavailability of techno savvy teachers to teach online

- Network issue to attend the classes online

- Lack of online test examination based on MCQs

- Free of cost online assistance to the students

7. **Notes (Optional)** :

- Many students contact for online assistance regarding lectures, topics and even for the literature. The students are found very happy to see such type of lectures on YouTube from the teacher teaching in higher education. More than **5000 subscribers** are associated with the channel from India and abroad. The channel is accessed in more than 7 countries across the globe. More lecture based on teaching learning in life sciences, higher education regulation and need of the hour and also, assessment and accreditation will be made available in coming near future.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-Ordinator

Dr. Akhilesh V. Peshwe

Principal

➢ **Name of the Department** : **Department of Botany**
➢ **Name of Teacher In-charge** : **Dr. Pitambar Humane**
➢ **Session of Implementation** : **2021-22**
➢ **Name of the Class for which the** **Students and Staff**
   Best Practice was conducted :
➢ **Number of students benefitted** : **Students and Staff**

1. **Title of the Practice** : **Covid-19 Vaccination**
2. **Objectives of the Practice** :
   - Organization of vaccination drive for the student and teachers for Covid-19
   - To create awareness about the vaccination to fight against Corona
   - To provide vaccines free of cost to the students and staff of the college

3. **The Context** :
   - To fight against corona was very difficult without vaccines and people were under fear for Covid-19 vaccination. So, for mass counselling as well as awareness the drive was organized.
   - For Covid-19 it was necessary to book vaccines on various centres hence, the facility was made available for students and staff of the college.

4. **The Practice** :
   - Due to corona, this vaccination drive was organized in the college

5. **Evidence of Success** :
   - The list of vaccinated students and staff and geotag photographs are preserved with NSS Unit of the college.
   - Many of the staff and students took advantage of this activity

6. **Problems Encountered and Resources Required:**

- The people were feeling awkward to get vaccinated due to misinterpretation on different social media.
- There was very poor response to the vaccination conducted at different centers in the city.
- To fight against the corona the NMC staff was taken to conduct the vaccination drive.

7. **Notes (Optional)**   :
- The vaccinations of the people was very much important to fight against corona pandemic and even other diseases to generate mass immunity. The counseling and awareness was also important about the pandemic. The experts from NMC health department were asked to provide on campus vaccination to the staff and students of the college. Hence, the activity was conducted in association with NMC, Nagpur

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
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Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➢ **Name of the Department** : Botany
➢ **Name of Teacher In-charge** : Dr. Pitambar Humane
➢ **Session of Implementation** : 2021-22
➢ **Name of the Class for which the** B.Sc. Sem-III
   Best Practice was conducted :
➢ **Number of students benefitted** : B.Sc. Sem-III Class

1. **Title of the Practice** : The Study of floristic biodiversity

2. **Objectives of the Practice** :

    • To study the angiosperms around us and to know the local flora this activity is practiced in nearby college campus as well as in the village premises where NSS Camps are organized.

    • To make the students aware about the research activities in angiosperm taxonomy.

    • To prepare the students for conservation of environment for sustainable development

    • To make the student familiar with composition of the local flora and its importance in environment.

3. **The Context** :

    • As a student and teacher of Botany, field-based study was found difficult to the students, but is practical based and very much important for the subject students. Motivation of the students for field study as well as teaching them botanical names, plant identification is a challenging job.

    • Also, use of flora in field is not possible hence, its use in identification were taught in laboratory. This practice is utmost necessary for the Botany students and hence all the problems were overcome for implementation of this activity.

4. **The Practice** :

    • Such student centric projects like field visits to explore Angiosperm flora of different places is uncommon in UG classes, hence students entering in PG after involvement in such activities, are more knowledgeable and well-versed about the basic things in the subject.

- Also, the research attitude is developed among the students with participation in such activities.

5. **Evidence of Success**   :
    - Data regarding the flora studied in students' centric projects were collected and stored in the department. Many photographs were also taken during the survey, which help the upcoming students to guide them in identification and actual pictures of the plants.

    - This data will be useful in compilation of this work in the form of field guide for the students in near future. Such type of practices definitely assists the students in enhancing their interest in the subject as well as to inculcate research attitude among them.

6. **Problems Encountered and Resources Required:**
    - Management of time in academic time table for field visit is an important thing in implementation of this activity.

    - Identification of interested students for field study is necessary during this activity. Accordingly, the method was followed and students were taken for fiend visits in nearby area of the institution as well as during NSS Camp.

7. **Notes (Optional)**   :
    - Students are taken into the field in college campus, nearby college i.e., Ambazari lake premises and even the place where NSS Camps are organized. The HOD of Botany provides the scientific names of the plants to the students found common the areas.

    - The information about the ethnobotanical uses is given while studying in the field. The listing of the plants is made along with their scientific information and ethnobotanical data.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-Ordinator

Dr. Akhilesh V. Peshwe

Principal

- Name of the Department : **National Service Scheme (NSS)**
- Name of Teacher In-charge : **Dr. Pitambar Humane**
- Session of Implementation : **2021-22**
- Name of the Class for which the **NSS Volunteer**
  Best Practice was conducted :
- Number of students benefitted : **NSS Volunteer**

1. **Title of the Practice** : **Tree Plantation**
2. **Objectives of the Practice** :

- To increase green cover by plantation in college campus as well as in the places of NSS Camps.
- To increase the awareness and importance of tree plantation.
- To spread the msg of save trees, save environment and save earth.

3. **The Context** :

- Tree plantation is a need of hour to save the environment so that it can help to avoid global warming.
- Plants are the producers of universe and even shelter houses of many birds and other organisms.
- Tree plantation help to increase rainfall and reduce soil erosion.

4. **The Practice** :

- Tree plantation is conducted every year on 3rd August, on occasion of foundation day of Dharampeth Education Society, a parent society of the institute.
- On the day of activity, the society members, secretory, presidents, etc. remain present for inauguration of the activity.
- The NSS volunteers and teaching and non-teaching staff members of the college participate in the activity of plantation.

5. **Evidence of Success** :

- The geotag photographs are preserved with NSS Unit of the college.
- Many trees planted during tree plantation program are there on the campus.
- Trees are also planted in the villages and schools where the NSS Camp was organized.

6. **Problems Encountered and Resources Required:**

- The conservation of environment is only possible due to tree plantation and tree plantation is not practiced everywhere without reason though there is urgent need.
- The reduced number of tress day by day as well as decrease in forest cover there is need to involve every citizen to practice tree plantation program.
- NSS Volunteers are involved in planting tree species on college campus as well as in villages where NSS Camp organized

7. **Notes (Optional)** :

- Tree plantation is most important activity to conserve environment and mother earth to save the lives of all animals. The sustainable development is only possible by tree plantation for future generation. In the program many trees are planted on college campus as well as in villages. The activity contributes in increase in the tree cover of mother earth. This will help to provide oxygen, food and shelter for birds and other animals, shade to human beings, etc.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-Ordinator
CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
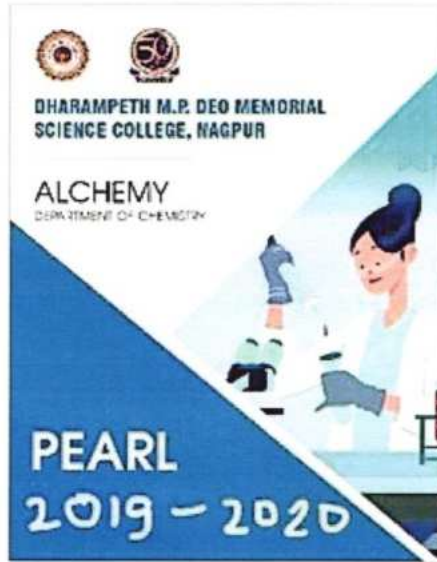SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➤ **Name of the Department** : Chemistry

➤ **Name of Teacher In-charge** : Dr. Vaishali P. Meshram

➤ **Session of Implementation** : 2021-22

➤ **Name of the Class for which the** All Semester
   Best Practice was conducted :

➤ **Number of students benefitted** : All chemistry Students

1. **Title of the Practice** :

   Publication of Departmental Magazine, "PEARLS"

2. **Objectives of the Practice** :

   • Spread awareness about how to write scientific articles, avoid plagiarism during the publication of any scientific articles, copy right rules, practical thinking, etc.

   • To get the platform to publish their interesting topics.

3. **The Context** :

   The subject related and other thoughts are always running in student's mind. Sometime students face difficulties in how and what to write in scientific articles what type of matter contents of articles and topic of articles so our department decide to do the practice of writing of articles with their own interest and decide theme of articles which are related with chemistry topic or syllabus also

4. **The Practice** :

   The students opt for chemistry as one of the subjects are notified to send their ideas/ write-ups and matter to be published for the PEARLS magazine. After critically look, selected articles are edited and then a magazine is published on college level under the Alchemy society of the department.

5. **Evidence of Success** :

   Cover page theme of magazine, Photographs of activities, published magazine

6. **Problems Encountered and**
   Resources Required

   :

   Students not referred Books properly so they have less matter and do not understand how to handle the running matter so they required proper guidance and updating the knowledge while writing articles.

7. **Notes (Optional)** : NA

DHARAMPETH M.P. DEO MEMORIAL SCIENCE COLLEGE, NAGPUR

ALCHEMY
DEPARTMENT OF CHEMISTRY

PEARL
2019 − 2020

Dr. Vaishali P. Meshram

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator

Dr. Akhilesh V. Peshwe

Principal

➤	Name of the Department	:	**Computer Science**
➤	Name of Teacher In-charge	:	**Mrs. Snehal Narale**
➤	Session of Implementation	:	**2021-22**
➤	Name of the Class for which the Best Practice was conducted :		**B. Sc. I**
➤	Number of students benefitted	:	**192 for Sem-I and 185 for Sem-II**
1.	Title of the Practice	:	**IIT Spoken Tutorial Certificate Course**

2.   Objectives of the Practice   :

In the world of digitization, the implementation of ICT in higher education is the need and demand of this era. The Spoken Tutorial project take an   initiative of the 'Talk to a Teacher' activity of the National Mission on Education through Information and Communication Technology (ICT), launched by the Ministry of Human Resources and Development, Government of India. Demand and scope for such professionally trend graduates are visible in the applied fields of almost all basic and core disciplines and faculty in the changing global scenario and are likely to increase in the future.

3.   The Context   :

At the preliminary level, college introduces the courses for final year students of computer science. Students were not aware about the courses and training program of IIT spoken and that's the reason they were not register themselves for the FOSS courses like c and cpp, libreoffice suite [base] etc. To make convince the students for their active participation in the training and certification of IIT spoken is the biggest challenge while designing and framing of these courses at the initial level. Apart from the regular syllabus, providing some value addition courses to the students is also huge task as students are busy in their regular academics and extra circular activities.

4.   The Practice   :

Spoken Tutorial is a magical Audio Video teaching tool promoting ICT enabled learning. Spoken Tutorials train in simple steps moving from simple to complex levels and give practical training of the theoretical concepts. As a result students fast track their knowledge and cope better with the course. The method is distance learning and it is unique as students learn by their own selves (SELF Learning) and individually. To get more detail knowledge about the FOSS training will be provided to the students in the lab Hours. The college runs certificate course of IIT spoken tutorial in which trainer faculty train the students using various methods like power point, audio and video tools for the specific course for which he/she registered. Though computer based, the learning and practice is completely offline once the courses are downloaded into the systems

faculty trainer provides the study material to the students and then students listen using earphones, pause, rewind, fast forward as per their progress . This is unique method of teaching in which students learn the different courses from their syllabus as well as advance level also through an interactive manner using simulation which understands hands on the practical application of the theoretical concepts. Self Training can improves students IT/programming/simulation skills as well improves their employment potential. GOI had taken an initiative to launch this project IIT spoken tutorial. At the beginning of this certificate course only one course (C and CPP) was introduced for computer science students in the year 2017-18 only then after 2-3 years all the students benefited with this certificate course. Progressively more number of courses were added and offered to the students by the college. Since then the course is running smoothly, computer department of the college provided training to the students. The faculty trained the students in offline mode, but in COVID-19 pandemic situation due to online mode of teaching, learning and flexibility of timing a sudden spurt in the no. of students getting benefited from this course. Many students get benefited with more than one certificate course which will help them to enhance and increase their concept clarity of the subject. College was introduced level wise courses to the students starting from introduction to Computers to advance courses like PHP and Mysql was newly introduced to the students which help them to enhance their programming skills.

5. **Evidence of Success** :

- Under IIT spoken tutorial project college has trained more than 800 students in various mapped and unmapped courses of IIT spoken tutorial. Year-wise comparison of Total no of students passed from the session 2017-18 till 2021-2022 is given in the graph for the different FOSS courses like Introduction to computers, C and CPP, Libre office suite [base], Arduino, PHP and MySQL, Inkscape and many more. From the graph it is observed that the passing percentage of the students progressively increased. Many students were selected for the interview process of well-known IT industry and some of the students received job offer letter to them from IT Company. The Biggest outcome of conduction of these courses at our college center from last five year is that the college has receive **BRIGHT INSTITUTE AWARD** for the contribution in organizing training and spreading awareness on FLOSS/MOOCs from Western Region from Spoken Tutorial, IIT Bombay by the hands of Prof.Kannan Moudglya(Project Coordinator IIT Bombay) and Meenal Karanwal (Sub divisional Magistrate and Project coordinator (Tribal) Nandurbar). Students those who have completed their training and certification in the various courses approaches and show their keen interest to join some advance IIT spoken courses which help them to get the better job opportunities as well as enhance their skills to the College coordinator Dr.Snehal Narale.

- List of the students those who received job offer letter From IIT spoken Tutorial are

in the department.
- All the details regarding the practice are available on college website
  https://www.dharampethscience.com/iit-spoken-tutorial-course/

6. **Problems Encountered and Resources**
    Required   :

    At first time it was quite difficult for the faculty to make convince to the students about their enrollment for the various courses of the IIT spoken courses. Students were unaware about the unmapped courses offered by IIT. Student's personal counseling helps the faculty to make them comfortable in the courses in which they were enrolled. During the pandemic situation it was difficult for the faculties to handle their online final exam of IIT spoken because of students are not much comfortable with online platform and even though they were not familiar with student dashboard of IIT portal and online examination process. From last year some of the students show their interest to do advance IIT spoken Certificate courses. Hence more computers are required to implement the concept of lab migration of IIT spoken. Due to poor network connectivity issue Some students are not able to attend the classes and online examination also . Hence strengthen computer separate lab with internet connection required for the successful execution of these courses at our college center.

7. **Notes (Optional)**   :

    Conduction of this activity every year motivates the students to participate in more number for various courses of IIT Spoken offer by College as for those who had not participated or enrolled for the courses before. The Certificates which they got help them to placed in good IT Company.

Name & Signature of In-Charge of the Practice
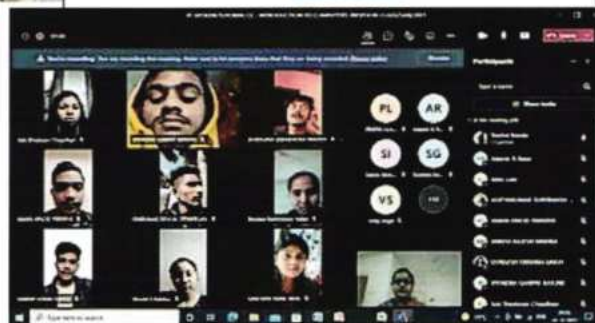
Prof. Pitambar Humane
IQAC Co-ordinator
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Dr. Akhilesh V. Peshwe
Principal
Principal
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Science College, Nagpur.

IIT SPOKEN TUTORIAL CERTIFICATE COURSE
FEEDBACK ANALYSIS
2021-2022

Prof. Pitambar Humane
IQAC Co-ordinator

Name & Signature of In-Charge of the Practice

Dr. Akhilesh V. Peshwe
Principal

> **Name of the Department** : **Computer Science**
> **Name of Teacher In-charge** : **Mrs. Snehal Narale**
> **Session of Implementation** : **2021-22**
> **Name of the Class for which the** **B. Sc. II & III**
> **Best Practice was conducted :**
> **Number of students benefitted** : **154-Enrolled, 28-Participants**
> **submitted article**

1. **Title of the Practice** : **One Day Workshop on "Writing Scientific Research Article/Paper"**

2. **Objectives of the Practice** :

Research in innovation is the new era for the students. Conduction of such type of the workshop helps the students to create and develop their interest and idea in the field of Research. Students also get detail knowledge of the topic of the research and its future scope. They also understand the whole process of writing article or paper on their topic of interest in the computer science or recent trends and technology used in this particular subject. It would help the students in the selection of topic of interest as well as writing a Research paper or article.

3. **The Context** :

At the initial level the response of the students were very poor as if they were not aware about the research area and its working pattern for UG Students. It is very difficult for the faculty to convince them to attend such types of workshops. The activity was conducted during the covid period in an online mode. While conducting such type of the workshop specially which are base on the research in an online mode faculty has noticed some points and may have to face the challenges with the students like:

- Lack of In-Person Interaction
- Infrastructural Problems
- Require more Motivation in Students
- Abundant Distractions, Lack of Discipline

While considering all the challenges that may have to face during the conduction of the problem the workshop was designed only for the interested students those who really wants to do research. . Faculty has interacts with the students during her regular classes and ask them whether they are interested or not. First create Google registration form and then share with the students.

4. The Practice :

Writing scientific article or research paper is a basic skill that must be learned by the students only using repetitive practice of reading, writing and revising. This workshop is intended to impart researchers/students with basic skills in writing and publishing a scientific paper in a peer reviewed journal. The department of computer science takes an initiative to train the students in the field of research by conducting such type of seminar to promote the students to work in the research area. UG students are unaware about this particular area of research as compare to the students of post graduation. To break this constraints the department conducted the workshop based on the research paper and the compete process of writing research paper. This would be a unique activity for the students of computer science organized by the department from last tew years continuously. In higher education of India researcher plays a vital role to build the nation more ahead and grow in the highest level.

In this workshop the list of the contents will be covered like

- What is research? What it its need?
- What is the aim and objectives of conducting this workshop based on the research paper or article?
- What would be expected outcome/results from the workshop?
- Difference between research paper and article
- Different steps that must be follow by the students while writing scientific article /paper.
- Detailing of writing scientific research paper and do's and don'ts of it. Some of the points have been included as given below section wise.
- **Formatting Section**
  - ❖ Use active voice
  - ❖ Follow the style guide for publication
  - ❖ Organize the paper in the proper order
- **Writing the Sections must include How to**
  - ❖ Start with the Materials and Methods section.
  - ❖ Describe the results in the Results section.
  - ❖ Interpret your data in the Discussion section.
  - ❖ Review the literature in the Introduction
  - ❖ Summarize the paper in the Abstract.
  - ❖ Write a descriptive Title.
- **Making the Figures and Tables**
  - ❖ Write figure legends that describe the data
- **Citing Your Sources Properly.**

The workshop will also the help the student participants to understand how to outline a scientific article or paper, become familiar to construct an argument in a scientific

manuscript, do effective literature search and review, manage references using different software, understand authorship, plagiarism and ethics in publication.

5. **Evidence of Success** :

At the end of the workshop student participants would understand the complete process of writing scientific research article /paper and how to publish the paper or article in the renowned journal. If participants have sufficient data to begin writing a paper, they could work on the draft during group work. Some of the student participants show their interest to write an article or research paper. At the initial level they just tried to copy the concept from the net and reframe it. But after this workshop some of them really understand what are research and its nothing to copy the data but using the basic idea we need to add our innovations into it. Some of the students submit their article/paper to the faculty and some are working on it .

The article we have received from them it is clearly understood they really work improving their writing and reading skills. From some of the article it is found that they only copy data from the internet but after giving additional guidance and time to time motivation they really work well on that.

- **Registration Form Link :**
https://forms.gle/PtbbUd3FQQwFGhhJ9
- **Feedback Response Link :**
https://forms.gle/DzfDDrXspS1L56km6

6. **Problems Encountered and**
Resources Required :

When this workshop was conducted first time it was quite difficult for the faculty (Mrs. Snehal Narale) to make convince to the students how this would help them in their future. Time to time motivation is required for the students and the practice of arranging such types of workshop now it is quite easy to make the registration for the students. Due to time constraint the workshop is organized for one day only. But the department has planned to invite some guests to give more additional information about the research area and what is the scope of this for UG students in their life.

7. **Notes (Optional)** :

If this practice is undertaken by the every year it would help to increase number researcher those who have really interest to do research and create job opportunities in research field

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
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Dr. Akhilesh V. Peshwe
Principal
Principal
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Science College, Nagpur.

> **Name of the Department** : **English**
> **Name of Teacher In-charge** : **Dr. Mrs. Shraddha Deshpande**
> **Session of Implementation** : **2021-22**
> **Name of the Class for which the** **B.Sc. I**
>   **Best Practice was conducted :**
> **Number of students benefitted** : **B.Sc. Sem-1/2**

1. **Title of the Practice** : Scrap Book Making: Five Stars of India

2. **Objectives of the Practice** :

To motivate students to gain knowledge about the innovative projects carried by Indian Scientist and innovators a scrap book making activity was conducted. Experimenting with new concepts, ideas and business models often leads to new insights and students should be inspired to read and know about such people who strive for nation building.

3. **The Context** :

The innovation and incubation cell of the college motivates students to instill research aptitude of the science students in developing new ideas and concepts based on the syllabus. One of the texts prescribed 'Grassroots innovation and Social Enterprise: Changing Lives' discussing the astonishing innovations of the Indian Scientists.

4. **The Practice** :

Students were asked to prepare a Scrap book of five innovators or start-up from categories such as: youth, women, rural, university, and veterans. Students enthusiastically participated in making scrap books and submitted in the department. The activity inspired them to read and analyze and identify the challenges and opportunities of innovators and incubators in gaining success for their enterprise.

5. **Evidence of Success** :

Scrap Books are stored in the department.

6. **Problems Encountered and**
   Resources Required :

The data collected by the students was a little repetitive as they must have googled and thus the information was common in some of the scrap books. Students must use college

library to gather information which could prove diverse and more that can be shared with other students.

7.   **Notes (Optional)**   :

Sandeshpande

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

- ➤ **Name of the Department** : English
- ➤ **Name of Teacher In-charge** : Dr. Mrs. Shraddha Deshpande
- ➤ **Session of Implementation** : 2021-22
- ➤ **Name of the Class for which the** B.Sc. I
  Best Practice was conducted :
- ➤ **Number of students benefitted** : 50-70

1. **Title of the Practice** : Poster Making Activity

2. **Objectives of the Practice** :

Posters with a specific social or motivational theme brings a great value to the society. Motivational posters are meant to encourage people to do something. Also, motivational posters can be a part of a social program helping people to overbear difficult life situations. This activity was aimed at motivating students to empower their minds through the prescribed text.

3. **The Context** :

The basic concept behind poster making is shared and students make posters on the basis of the topics discussed in the class.

4. **The Practice** :

Students displayed their creativity through ideas and presented it in the form of posters. The stories in the syllabus are based on educational, social and personal issues and poster making activity based on these issues improved their analytical and critical thinking of students.

5. **Evidence of Success** :

Please see the associated sample pictures.

6. **Problems Encountered and**
   Resources Required :

In covid times motivating students was a difficult task, as answering the queries of each one of them may not be possible every time. This is time when we as teachers should provide them learning platforms that will give them self-learning and self-evaluating opportunities. Indeed, the role of a teacher is not totally absent in this approach, on the

other hand, it is of the facilitator who catalyses the process of learning in a learner friendly way.

7.   **Notes (Optional)**   :

Name & Signature of In-Charge of the Practice

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Dr. Akhilesh V. Peshwe

Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➢ **Name of the Department**   : **Department of Computer Science**
➢ **Name of Teacher In-charge**   : **Mrs. Ruma Rahul Kapre**
➢ **Session of Implementation**   : **2021-22**
➢ **Name of the Class for which the**   **B.Sc. Computer Science Students**
   Best Practice was conducted   :
➢ **Number of students benefitted**   **All Computer Science Students**
   :

1. **Title of the Practice**   :
   Development of Online Portal for the submission of Assignments and Conducting Online Test Examinations

2. **Objectives of the Practice**   :
   - A portal is made for both Teacher and Student.
   - A huge syllabus-based question bank can be generated for online tests and assignments.
   - Working of Department will be paper less for evaluation of students.
   - Separate Log in for Teacher for maintaining student's data.
   - Students will receive all notification for uploading assignments and online test through the portal.
   - Test score generated immediately after submission of online test.
   - A detail Students Report generated at the end of the academic session.

3. **The Context**   :
   To overcome the COVID-19 pandemic situation, there was need of Online portal to conduct online test examination as well as for submission of assignments. The students of computer science department were guided to develop such online portal so that test and submission of assignments can be undertaken in online mode.

4. **The Practice**   :
   The portal contains a separate login for Teacher and Student. Students have access to submit their assignment and also appear for Online Test. The portal has facility of auto submitting the test immediately if student move on another tab. Teachers can create Assignment, Test, Question Bank and Student Report. PAPERLESS Data Maintenance is possible due to this portal.

5. **Evidence of Success**   :
   Online Portal URL: - www.dsccsedproject001.in

6. **Problems Encountered and**
   Resources Required   :

   Project Developed in:
   ❖ HTML, CSS, PHP, JAVASCRIPT

Backend Used:

- ❖ PHPMYADMIN

To implement the project following Resources were required:

- ❖ Server
- ❖ Domain Name
- ❖ Disk Space
- ❖ Bandwidth
- ❖ MYSQL Databases
- ❖ Cpanel
- ❖ SSL Certificate

7.   Notes (Optional)   :

This online portal has been developed by the students of B.Sc. III of Computer Science Department in connection for maintenance of departmental record with reference to Student Centric Activities such as Assignment Submission, Online Exams, Online Quiz & various other classroom activities.

In the backdrop of covid-19 pandemic, as emphasis is on online & paperless working this will prove to be a boon to the department for maintenance of academic records as this portal is developed by the students as per department need.

Names of Students Involved:

1. Abhijit Muley
2. Abhishek Muley
3. Kanishk Patil
4. Prathmesh Aacharya

Name & Signature of In-Charge of the Practice
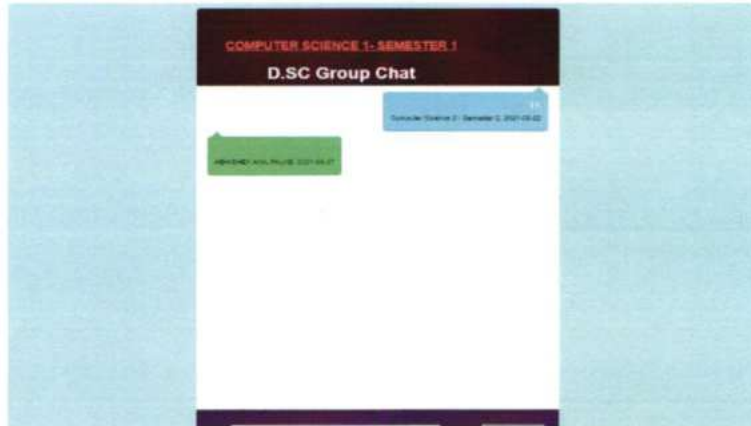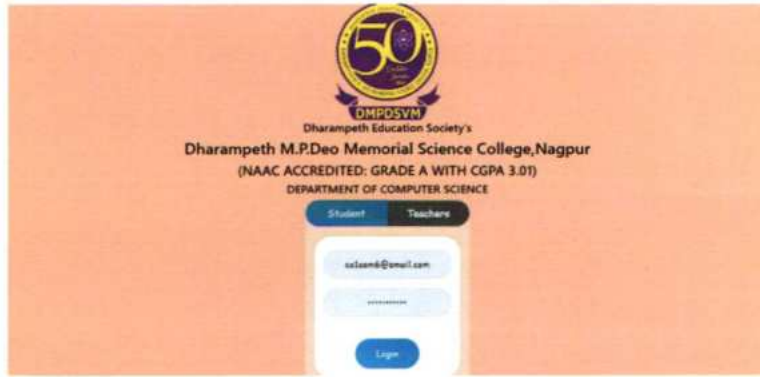
Prof. Pitambar Humane
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Dr. Akhilesh V. Peshwe
Principal

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

➤ **Name of the Department** : Department of Computer Science
➤ **Name of Teacher In-charge** : Mrs. Ruma Rahul Kapre
➤ **Session of Implementation** : 2021-22
➤ **Name of the Class for which the** B.Sc. SEM. I and III Computer Science Students
   Best Practice was conducted :
➤ **Number of students benefitted** : 27

1. **Title of the Practice** :
   E Poster (Digital Poster) Making on, Artificial Intelligence, Speech and Image Processing and Cloud Computing

2. **Objectives of the Practice** :
   ❖ Students learn how to use Online Software which are available for making poster.
   ❖ Enhances the knowledge of students regarding software
   ❖ Students are able to understand and handle online software available.
   ❖ Students are able to express themselves creatively
   ❖ Improves knowledge and thought process on the current topics given to make posters.

3. **The Context** :
   Students should learn the use of online software to make the digital poster was the aim of the practice. In addition to this, all the students need to get aware on the current topics given to make the poster. To get the knowledge on the topics which are not included in the syllabus also they should read the study material on the current topics and also learn to display their thought process in the form of poster was the objective of the practices.

4. **The Practice** :
   Students used online software for preparation of the poster which enhance their knowledge of using online software which is not a part of syllabus. Through this practice student were able to express themselves creatively, beautifully and also gauge their knowledge and awareness on the given current topics.

5. **Evidence of Success** :
   Response Link: -
   https://docs.google.com/spreadsheets/d/1kRBxF96m01wYNckj-dOY-4aa3DOT
   dQVSGscolfqRiCY/edit?usp=sharing

6. **Problems Encountered and**
   Resources Required :

Students were facing some network issues of using online software for making poster.

Resource Required:

Online Software for making Poster

7. **Notes (Optional)** :

For making digital poster students uses many online software available. First they search which online software can be used to make the digital poster then they decided particular software according to their thought process of making poster. At the end they made beautiful posters. Through this activity student learned how to use online software and also presents their ideas and thoughts on the current topics given to them for making poster.

Name & Signature of In-Charge of the Practice

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Science College, Nagpur.

➢ **Name of the Department** : Home Science
➢ **Name of Teacher In-charge** : Mrs. Meghna Pandit
➢ **Session of Implementation** : 2021-22
➢ **Name of the Class for which the** Students of Semester VI
Best Practice was conducted :
➢ **Number of students benefitted** : 38

1. **Title of the Practice** :
Conduct of a survey of non-communicable diseases and their risk factors among adults in Nagpur

2. **Objectives of the Practice** :
Development of survey execution capabilities and practical application of subject among students

3. **The Context** :
Non-communicable diseases (NCDs) have today become a growing epidemic, surpassing infectious diseases and adversely impacting national health systems, policies, and socio-economic developments. Management of NCD and its risk factors such as tobacco use, poor diet, physical inactivity, and obesity has garnered paramount importance under the Sustainable Development Goals (SDGs) of WHO. Awareness regarding the same is paramount for prevention of NCDs.

4. **The Practice** :
All the participants were evaluated using a modified version of the World Health Organization (WHO) Stepwise approach to non-communicable diseases which entailed history taking, looking particularly for risk factors for NCDs and the lifestyle of the subjects. The questionnaire was developed and executed in online mode through Google Forms.

5. **Evidence of Success** :
All students benefitted from this participative learning exercise. They conducted the surveys in a proper and unbiased manner and also gained awareness regarding the subject.

6. **Problems Encountered and**
Resources Required :
Due to the pandemic, personal contact was not possible, hence students faced difficulty in conducting the survey.

7.   Notes (Optional)   :

Name & Signature of In-Charge of the Practice

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Dr. Akhilesh V. Peshwe

Principal

Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➢ **Name of the Department** : **IQAC, Dharampeth MPDM Science College &**
Bharat Vikas Parishad, Nagpur

➢ **Name of Teacher In-charge** : **Mrs. M. M. Deshpande**

➢ **Session of Implementation** : **2021-22**

➢ **Name of the Class for which the** **All staff and students**
Best Practice was conducted :

➢ **Number of students benefitted** : NA

1. **Title of the Practice** : **Project Melghat: A social Responsibility**

2. **Objectives of the Practice** :

- To Inculcate Social Responsibility amongst Teachers & Young Students this activity was initiated.
- A Project where in entire Staff & students Participated.

3. **The Context** :

All the Stake holders to be a part of this activity to support, help & be of service to mankind.

4. **The Practice** :

Practice allows the People to contribute to the growth & happiness of the Underprivileged People of Melghat. By doing so we strive to touch the India's rural areas that lack even necessities such as food & clothing. So, by joining hands with Bharat Vikas Parishad, we try to bring cheers and happiness in the lives of such Tribal Adivasis of Melghat

5. **Evidence of Success** :

Colonel Muley, In charge, south west zone along office bearers had come for the Collection

6. **Problems Encountered and**

   Resources Required :

Kitchen waste was made in use. Students collected the dry waste from nearby vicinity. Sand was bought by few Students.

7. **Notes (Optional)** :

Seen in Photograph are the Entire esteemed members as Staff of College with office bearers of Bhart Vikas Parishad. IQAC Coordinator Prof Dr Humne Sir giving the donated clothes & material. Coverage of the news in local Live Nagpur

धरमपेठ शिक्षण संस्था संचालित
धरमपेठ म. पां. देव स्मृती विज्ञान महाविद्यालय
आणि
भारत विकास परिषद
दक्षिण-पश्चिम नागपूर शाखा
संयुक्त विद्यमाने
मेळघाट प्रकल्प
Melghat Project

दिनांक:

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

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➤	Name of the Department	:	Microbiology
➤	Name of Teacher In-charge	:	Dr. Mrs. Vidya Kathoke
➤	Session of Implementation	:	2021-22
➤	Name of the Class for which the Best Practice was conducted	:	NA (Departmental)
➤	Number of students benefitted	:	All opted for subject

1. **Title of the Practice** :

Disposal of biomedical waste generated in the microbiology laboratory.

2. **Objectives of the Practice** :

The objective of biomedical waste disposal is to ensure its safe disposal to avoid any hazardous impact on human health and environment.

3. **The Context** :

- The biomedical waste is defined as any waste, that is generated during -

  ➤ The diagnostic procedures,

  ➤ Microbial sub culturing process

  ➤ After molecular biology experiments

  ➤ Syringes, needles etc.

- Poor medical waste management causes environmental pollutions, unpleasant smell, growth and multiplication of not only microbes but also worms, insect etc. and may lead to the transmission of diseases like *typhoid, cholera* and other common source epidemics.

  ➤ Hence proper disposal of biomedical waste is of utmost importance in reducing the incidences of spread of infectious diseases.

4. **The Practice** :

- The disposal of biomedical waste generated in microbiology laboratory comprises used microbial cultures and nutrient media, syringes, needles, molecular biology experimental kits etc. are disposed off by taking proper precaution and ensuring safety of all stakeholders.

- The college has contract with the Professional company which collects the biomedical waste generated in the laboratory twice a week, thus ensuring safety to all.

5. **Evidence of Success** :
The practice runs properly for which the firm issued certificates which are maintained in the department.

6. **Problems Encountered and Resources**
   Required :
   Sometimes there is delay in collecting the biomedical waste by the company from the laboratory. In such situations difficulty may be encountered due to inadequate man power.

7. **Notes (Optional)** : NA

Name & Signature of In-Charge of the Practice

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Principal
Principal
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Science College, Nagpur.

➤ **Name of the Department**	:	Physics
➤ **Name of Teacher In-charge**	:	Lt. Dr. Prashant Ambekar & Dr. Seema Ubale
➤ **Session of Implementation**	:	2021-22
➤ **Name of the Class for which the Best Practice was conducted :**		B.Sc. I, II, III
➤ **Number of students benefitted**	:	Interested Students

1. **Title of the Practice** : **Workshop on Plastic Recycle and Reuse**

2. **Objectives of the Practice** :
   - To sensitize the students and their family members about the plastic reuse and recycle
   - To make students aware about the environmental issues originated by use once type plastics
   - To inculcate the design aspect using logic and expertise for beautification of the things.
   - To plant inhouse/ outdoor trees/ plants for generating oxygen.

3. **The Context** :
   The Department of Physics has organised the workshop titled 'plastic recycling and reuse' is conducted on regular basis to inculcate and develop skills such as 'best out of waste' and to tackle and contribute the environmental issues arising from single use plastic materials such as cans, bottles, and other utensils.

4. **The Practice** :
   In this workshop, the students and faculty members are asked to bring the plastic waste (garbage) available in their houses. With a minimal effort and materials, they are guided to develop planters or some other decorative or useful items, such as planters, pen holders, decorative items etc. This will have a double advantage namely reusing the plastic and planting plants which gives oxygen, reducing the carbon footprint.

5. **Evidence of Success** :
   1. Students have brought their house hold plastic for making their own designs particularly planters and other thing in general. They have applied their minds, brainstormed with colleagues, and designed respective planters or things.
   2. They collected the waste and made something best from it.
   3. They have planted the indoor/ outdoor plants and after successful planting shared selfies with the planters.
   4. As the planters were painted as per their wishes, they enjoyed sharing the details with other friends, hence the idea was shared with the mass.

6. **Problems Encountered and**
   Resources Required
   :
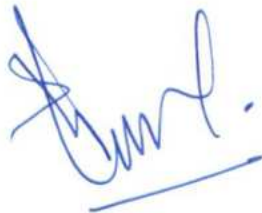
   The oil cans handling was a bit difficult as due to residue of the oil remains it was slippery while working with knife and scissors.

7. **Notes (Optional)** :
   This kind of practices should be implemented by the mass

Name & Signature of In-Charge of the Practice

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Dr. Akhilesh V. Peshwe
Principal
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Science College, Nagpur.

➢ **Name of the Department** : Zoology
➢ **Name of Teacher In-charge** : Dr. K. M. Paturkar
➢ **Session of Implementation** : 2021-22
➢ **Name of the Class for which the** B.Sc. III/V
Best Practice was conducted :
➢ **Number of students benefitted**
:

1. **Title of the Practice** :
Vermicomposting and Verm culturing by using green waste and Nirmalya collection

2. **Objectives of the Practice** :
  • Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean.
  • It creates awareness among the students about clean environment and best from waste.
  • To provide experiential knowledge of subject as it is a part of zoology curriculum.

3. **The Context** :
Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean. It will also create awareness among the students about clean environment and best from waste. Vermicast (also called worm castings, worm humus or worm manure) is the end-product of the breakdown of organic matter by an earthworm These castings have been shown to contain reduced levels of contaminants and a higher saturation of nutrients than do organic materials before vermicomposting. Vermicompost contains water-soluble nutrients and is an excellent, nutrient-rich organic fertilizer and soil conditioner. Vermi-composting is a part of applied Zoology. To create an awareness among the students about environment Department of Zoology has taken an initiative and started this activity. We use pit method for vermicomposting. We prepared vermicasts from green wastes from college campus.

4. **The Practice** :
Uniqueness of this activity is that we made this project research oriented Vermicompost generated from variety of flower waste and green waste Analysis was done for important elements for plant growth. found in soil.

5. **Evidence of Success**   :

Vermicompost generated from variety of flower waste and green waste. After analysis get the readings of nitrogen phosphorus and potassium and carbon..

6. **Problems Encountered and Resources Required**   and Nil
                                            :

7. **Notes (Optional)**   :

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

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Principal

- ➢ **Name of the Department**   :   Zoology
- ➢ **Name of Teacher In-charge**   :   Dr. K. M. Paturkar
- ➢ **Session of Implementation**   :   2021-22
- ➢ **Name of the Class for which the**   B.Sc. III/V
  Best Practice was conducted   :
- ➢ **Number of students benefitted**
  :

1. **Title of the Practice**   :
   Artificial bird nests installation inside the college campus.

2. **Objectives of the Practice**   :
   Birds are the important entity of the zoology, to preserve such a indicator of environmental health and to provide habitat for breeding is the main aim of this activity.

3. **The Context**   :
   Birds perform various ecosystem services like controlling pests in agriculture and forestry, pollination of plants seed dispersal and plant regeneration. Birds are the indicators of environmental health. Due to anthropogenic activities and factors like pollution, environmental degradation and rapid urbanization destroying bird's natural habitat. Therefore conservation of such habitat will definitely help in bird conservation and also help to study bird diversity that visit the college campus.

4. **The Practice**   :
   Uniqueness of this activity is to develop interest in birdwatching and to study bird behavior, parental care in birds and pattern of bird nesting.

5. **Evidence of Success**   :
   Bird nesting started in the month of June in installed artificial bird nest.

6. **Problems Encountered and Resources**   **Nil**
   Required   :

7. **Notes (Optional)**   :

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator

Dr. Akhilesh V. Peshwe

Principal

- ➤ **Name of the Department** : Zoology
- ➤ **Name of Teacher In-charge** : Dr. K. M. Paturkar
- ➤ **Session of Implementation** : 2021-22
- ➤ **Name of the Class for which the** B.Sc. III/V
  Best Practice was conducted :
- ➤ **Number of students benefitted**
  :

1. **Title of the Practice** : **Solid waste management by vermicomposting**

2. **Objectives of the Practice** :
   - Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean.
   - It creates awareness among the students about clean environment and best from waste. Analysis will help to know concentration of nutritive elements present in variety of cast generated by different waste for carbon and other important element present in different type of casts
   - To provide experiential knowledge of subject

3. **The Context** :
   Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean. It will also create awareness among the students about clean environment and best from waste. Vermicast (also called worm castings, worm humus or worm manure) is the end-product of the breakdown of organic matter by an earthworm These castings have been shown to contain reduced levels of contaminants and a higher saturation of nutrients than do organic materials before vermicomposting. Vermicompost contains water-soluble nutrients and is an excellent, nutrient-rich organic fertilizer and soil conditioner. Vermi-composting is a part of applied Zoology. To create an awareness among the students about environment Department of Zoology has taken an initiative and started this activity since 2017-18. We use pit method for vermicomposting. We prepared vermicasts from green wastes from college campus.

4. **The Practice** :
   Uniqueness of this activity is that we made this project research oriented through

which variety of vermicasts generated from different type wastes. Analysis of carbon and other important element present in different type of casts .

5. **Evidence of Success** :

One day workshop on 'Nutritional Waste Management' organized for students that helps students to enhance vermicomposting activity in the college campus.

6. **Problems Encountered and** Nil
   Resources Required :

7. **Notes (Optional)** :

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

CO ORDINATOR
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DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

> **Name of the Department** : Zoology
> **Name of Teacher In-charge** : Dr. K. M. Paturkar
> **Session of Implementation** : 2021-22
> **Name of the Class for which the** B.Sc. III/V
> **Best Practice was conducted** :
> **Number of students benefitted**
>   :

1. **Title of the Practice** : **Fresh water fish culturing**

2. **Objectives of the Practice** :
   - Impart knowledge about fundamentals of inland fisheries practices
   - To study effect of water parameters on fishes and fish breeding
   - Train students for the development of inland fisheries.
   - Impart knowledge for developing proficiency and management practices in food fishes

3. **The Context** :

   As fishes show economic and social importance, fisheries are governed by complex fisheries management practices. Recent threats by human overfishing and environmental issues have required increased regulation of fisheries to prevent conflict and increase fish breeding. As Fishery is the integral part of Zoology students must experience behaviour, fish breeding and their development and changes in water parameters in which they live, is the main aim of this activity.

4. **The Practice** :

   Breeding of local edible fishes like Rohu Catla and Mrugal inside the campus is the uniqueness of this activity.

5. **Evidence of Success** :

   Students get knowledge about fresh water fisheries, fish breeding and their development

6. **Problems Encountered and Resources** Nil
   Required :

7. **Notes (Optional)** :

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator

Dr. Akhilesh V. Peshwe

Principal

- **Name of the Department** : Zoology
- **Name of Teacher In-charge** : Dr. K. M. Paturkar
- **Session of Implementation** : 2021-22
- **Name of the Class for which the** B.Sc. III/V
  Best Practice was conducted :
- **Number of students benefitted**
  :

1. **Title of the Practice** : **Dragonfly rearing**

2. **Objectives of the Practice** :
   - The goals of this project which are to improve biodiversity and bring dragonflies back into our urban environment.
   - To aware students and give knowledge about Dragonflies as a natural mosquito repellent.
   - To study dragonflies' diversity.

3. **The Context** :
   Last year critical breakthrough of Dengue and given the high number of dengue cases in Nagpur. Being a natural mosquito repellent and pest controller our department has taken an initiative to rear dragonfly .in side the college campus as a best practice of application of knowledge of Zoology. To provide habitat and as a platform on which dragonflies can perch to lay their eggs, and for their larvae to emerge onto we made small tank that contain various water plants. Dragonflies are natural predators for Mosquitoes. They eat them at all stages of life An individual Dragonfly can eat hundreds of Mosquitoes each day Dragonflies are the best competitor for insects that will keep watch over an area and eat mosquitoes.. They swoop in at high speeds to capture their prey with their legs, then eat quickly them while flying. Dragonflies are such skilled hunters the potential for dragonflies to act as natural pest control against insects such mosquitoes..

4. **The Practice** :
   Male and female dragonflies captured from the college campus and released in the rearing tank for breeding. After successful breeding dragonflies released.

5. **Evidence of Success** :

6. **Problems   Encountered   and   Nil
    Resources Required   :**

7. **Notes (Optional)   :**

Name & Signature of In-Charge of the Practice

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Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

> Name of the Department : Zoology
> Name of Teacher In-charge : Dr. K. M. Paturkar
> Session of Implementation : 2021-22
> Name of the Class for which the B.Sc. III/V
> Best Practice was conducted :
> Number of students benefitted
>   :

1. Title of the Practice : **Solid waste management by vermicomposting**

2. Objectives of the Practice :

- Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean.
- It creates awareness among the students about clean environment and best from waste. Analysis will help to know concentration of nutritive elements present in variety of cast generated by different waste for carbon and other important element present in different type of casts
- To provide experiential knowledge of subject

3. The Context :

Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean. It will also create awareness among the students about clean environment and best from waste. Vermicast (also called worm castings, worm humus or worm manure) is the end-product of the breakdown of organic matter by an earthworm These castings have been shown to contain reduced levels of contaminants and a higher saturation of nutrients than do organic materials before vermicomposting. Vermicompost contains water-soluble nutrients and is an excellent, nutrient-rich organic fertilizer and soil conditioner. Vermi-composting is a part of applied Zoology. To create an awareness among the students about environment Department of Zoology has taken an initiative and started this activity since 2017-18. We use pit method for vermicomposting. We prepared vermicasts from green wastes from college campus.

4. The Practice :

Uniqueness of this activity is that we made this project research oriented through

which variety of vermicasts generated from different type wastes. Analysis of carbon and other important element present in different type of casts .

5. Evidence of Success   :

About 250 kg vermicompost generated from green waste of college campus and Research paper based carbon and NPK analysis was published with students.

6. Problems Encountered and Resources   Nil
Required   :

7. Notes (Optional)   :

https://ijrbat.in/upload_papers/0901202312591224%20K%20M%20Paturkar.pdf

CARBON NITROGEN EVALUATION OF VARIOUS VERMICAST BY NUTRITIONAL WASTE MANAGEMENT

Kirti Mangesh Paturkar, Prasad Kulkarni, Sahil Shambharkar, Parth Khandait, Bhairavi Bopardikar

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ABSTRACT:
Earthworms are the major component of soil in most ecosystem that helps in converting nutritional waste into nutrient rich soil. Their activities beneficial for enhancing soil nutrient cycling. Especially concentration of organic carbon and Nitrogen are the indicator of soil fertility. The Marigold (Zendu) and Chrysanthemum (Shevanti) flower waste from holy place and Cabbage leaf waste from vegetable seller was collected separately and cast generated from these waste analysed for the comparative study for the evaluation of organic carbon, Nitrogen and carbon nitrogen ratio are essential elements in cast generated from these wastes separately using HI and APHA method. Carbon and Nitrogen, the essential element for plants was found in high concentration in Marigold flower waste (9.16%) when compared with control sample and other waste while carbon nitrogen ratio found to be more in cast generated from cabbage leaf waste.

Keywords: Cast, APHA, HI, Organic.

INTRODUCTION :
Soil is the largest storehouse of the organic carbon. Soil organic carbon plays an important role in soil fertility and water conservation. Soil is also known to increase soil nutrient cycling capacity. The higher SOC content results in an improvement of the soil's condition has been discussed widely within the soil quality concept (Andrews et al. Al.2004). Doumaya et.al. 2008 identified total SOC content as one of the key soil quality indicator associated with differing yield. Numerous studies focused on the role of earthworm play in soil carbon mineralization and stabilization. Earthworms are known to modify the soil structure and alter the physicochemical parameters. Earthworms occurring globally in almost every ecosystems are biochemical reactors that transform unstable carbon compounds into more stable forms. Earthworm feeding and casting behavior serves as a mechanism for physical stabilization of carbon trapped within(Elvin Thomas,V. Shanthi

Prabha) Humification of organic matter by earthworms render a biochemical stabilization mechanism for soil carbon. Several studies highlighted the presence of earthworms to have a positive impact on the soil organic carbon (SOC) content (Cubai 1997, Bossuyt et al. 2005) Utilization of nutritional waste to restore important nutrient in soil is utmost important in various areas.
India shows a variety of cultural heritage and uses flower for decoration as well as for worship in holy places later these flowers are thrown as a waste material. The organic waste generated from vegetable market has ever prospect disposed and hence dumped in open ground which result in environmental pollution and nutritive elements present in such waste is wasted. These waste mixed with municipal solid waste and allowed to decay naturally. Decomposition this waste in also changed into smelly water bodies like wells, rivers and lakes which leads to pollution of water as well as environment , it also affects aquatic life. Solid

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Prof. Pitambar Humane
IQAC Co-ordinator

Name & Signature of In-Charge of the Practice

Dr. Akhilesh V. Peshwe
Principal

- ➤ **Name of the Department** : Zoology
- ➤ **Name of Teacher In-charge** : Dr. K. M. Paturkar
- ➤ **Session of Implementation** : 2021-22
- ➤ **Name of the Class for which the** B.Sc. III/V
  Best Practice was conducted :
- ➤ **Number of students benefitted**
  :

1. **Title of the Practice** : **Installation of Artificial beehive in the botanical garden for beekeeping.**

2. **Objectives of the Practice** :

Student can start rearing of honey bees at their backyard as well as in the field. To get knowledge of the procedure and handling of the bee hive.

Students get knowledge of the importance of honey bees for the food security.

3. **The Context** :

Beekeeping has been useful in pollination of crops, thereby, increasing income of the farmers/beekeepers by way of increasing crop yield and providing honey and other high value beehive products, viz.; bees wax, bee pollen, propolis, royal jelly, bee venom, Bees provide a vital pollination service to millions of acres of crops, improving sustainability and biodiversity. Bees are vitally important to the sustainability of agriculture. At least one-third of the human food supply from crops and plants depends on insect pollination, most of which is done by bees.

4. **The Practice** :

Installed artificial beehive in college botanical garden. Students were involved in the activity and learned the installation and other minor details of the process.

5. **Evidence of Success** :

Rearing of bees and colony formation takes place in the beehive.

6. **Problems Encountered and Resources** Nil
   Required :

7. **Notes (Optional)** :

Name & Signature of In-Charge of the Practice

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NAAC ACCREDITED GRADE 'A' WITH CGPA 3.01 (Third Cycle)

CRITERION-VII

Institutional Values and Best Practices

YEAR-2
2020-21

7.2.1

Describe two best practices successfully implemented by the
Institution as per NAAC format provided in the Manual during
the years 2020-21

SSR: 2023 FOR NAAC FOURTH CYCLE
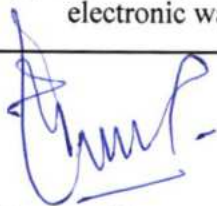
DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE, NAGPUR

7.2.1

Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual during the years 2020-21

LIST OF ACTIVITIES 2020-21

Sr. No	Title of the Best Practice	Name of Department or Committee	Name of the In-charge
1.	Maintenance through MCVC (PTCI	Minimum Competency and Vocational Course Department	Mr. Atul Moghe
2.	Blood Donation	National Service Scheme (NSS)	Dr. Pitambar Humane
3.	YouTube Channel BO|ANY 4U: An Online Platform for the students of life sciences	Department of Botany	Dr. Pitambar Humane
4.	Tree Plantation	National Service Scheme (NSS)	Dr. Pitambar Humane
5.	IIT Spoken Tutorial Certificate Course	Department of Computer Science	Dr. Mrs, Snehal Narale
6.	Pictionary Making Activity	Department of English	Dr. Mrs. Shraddha Deshpande
7.	Competitive Examination MPSC/UPSC Abhyas Mandal	Mathematics	Mr. Roshan K. Thakre
8.	Golden Jubilee Science Lecture Series	IQAC & Department of Computer Science	Mrs. Ruma Rahul Kapre

9.	Development of Online Portal for the submission of Assignments and Conducting Online Test Examinations	Department of Computer Science	Mrs. Ruma Rahul Kapre
10.	Safety Major to curb the spread of Covid19 for 3rd wave"	Department of Computer Science	Mrs. Ruma Rahul Kapre
11.	Development of useful apparatus using house hold electronic waste	Department of Physics	Lt. Dr. Prashant Ambekar

Prof. Pitambar Humane
IQAC Coordinator

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Dr. Akhilesh Peshwe
Principal

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Dharampeth M.P. Deo Memorial
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> Name of the Department   :   Maintenance Department
> Name of Teacher In-charge   :   Mr. Atul Moghe
> Session of Implementation   :   2020-21
>   *(Highly internalized at least 15-year-old practice)*
> Name of the Class for which the   Best practice offers services to all the
> Best Practice was conducted   :   departments and entire premises of the
>   institution.
> Number of students benefitted   :   All the students get benefit of maintenance
>   services

1. **Title of the Practice**   :   Maintenance through MCVC (PTC)

2. **Objectives of the Practice**   :
   - To minimize maintenance cost of the institutions
   - Skills set development of the students by providing them hands on practice
   - Entrepreneurship Development Opportunities for Students

3. **The Context**   :

   Maintenance cost of equipment and gadgets in all the departments was quite much. Labor is always expensive. Reducing this cost was one of the top most priority of the institution hence this practice started long time back. We were required to provide opportunity for students to gain experience and develop their skills so that they go out of the college with confidence.

4. **The Practice**   :

   The Maintenance Department of the institution renders its services to all the departments of the institution and attends breakdown in the power supply or electricity related issues. The department attempts to resolve the campus issues innovatively and creatively. The motion sensitive sensors developed by the department are used in the wash areas and toilets. Winding of all the fans is done in the maintenance departments. LED tube lights/bulbs; solar system maintenance

5. **Evidence of Success**   :

   One of the best practices of this department is that the department *assembles* brand new computers using branded parts saving at least Rs. 5000/- per assembly of the machine. *80*
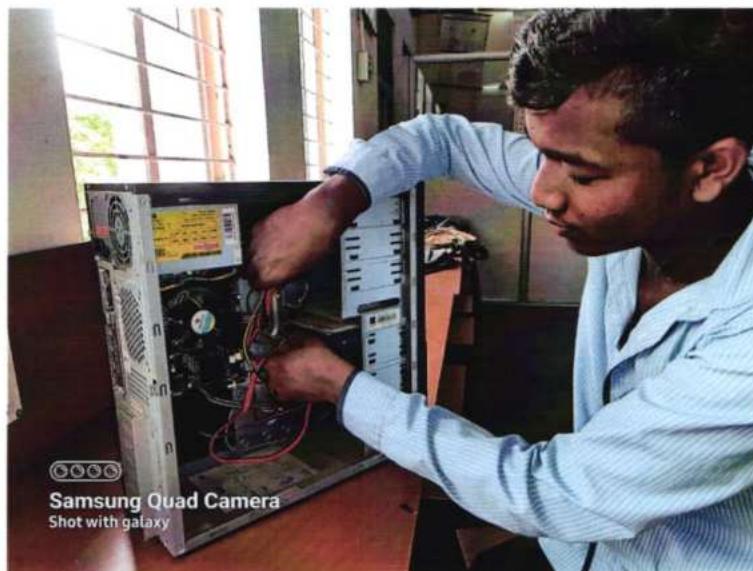
% machines of our institution have been assembled by the Maintenance Department. Maintenance of electrical fixtures, wiring, solar system etc. is done through the department. Department has developed a patent. Department has installed motion sensitive device for toilets and wash areas. Major contribution in saving revenue on maintenance.

6. **Problems Encountered and**
    Resources Required   :

    Less staff for maintenance department. All the issues of maintenance cannot be handled; hence some AMC are always required.

7. **Notes (Optional)**   :

    Honorable Peer Team Members of the 3rd Cycle appreciated the contribution of Maintenance Department.

(Mr. Atul Moghe)
Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator
CO ORDINATOR
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Dr. Akhilesh V. Peshwe
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PRINCIPAL
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➤	Name of the Department	:	National Service Scheme (NSS)
➤	Name of Teacher In-charge	:	Dr. Pitambar Humane
➤	Session of Implementation	:	2020-21
➤	Name of the Class for which the		NSS Volunteers
	Best Practice was conducted :		
➤	Number of students benefitted	:	NSS Volunteers
1.	Title of the Practice	:	Blood Donation

2. **Objectives of the Practice** :

- Organization of blood donation camp in memory of Late. Vinayakrao Phatak, on 8th August in every year as well as during the NSS Camp in villages.
- To inculcate the importance and need of blood donation as a social responsibility
- To take care the supply of blood to every needy person in the society in emergency. Organization of rallies to spread the awareness about the blood donation benefits and its future prospects.

3. **The Context** :

- . Blood and blood components are not generated in the laboratory and hence it must be donated by the individual
- Many misconceptions among the society which leads to collection of less amount of blood
- Inability to fulfill the need of blood for different patients by existing blood banks

4. **The Practice** :

- Organization of blood donation camp in memory of Late Vinayakrao Phatak in the institute, making this practice frequent repetition every year
- The blood is collected by Hedgewar Blood Bank during the blood donation camp and certificates are given to every donor.
- Many students after knowing the importance of blood donation, come forward to donate the blood, this helps them to understand the importance of blood donation and social responsibility.
- Since last many years, this practice made 1000s units of blood were collected during the camp, that definitely helped the society to save the lives.

5. **Evidence of Success** :

- The list of blood donors and geotag photographs are preserved with NSS Unit of the college.
- Also, the list of blood donors from the blood donation camp is available with

Hedgewar Blood Bank

- The collected blood was used to save the many lives through Hedgewar Blood Bank.

6. **Problems Encountered and**
   Resources Required   :

   - Though there is urgent need of blood to the society in every medical emergency, there is crunch of blood in blood banks, because of a smaller number of blood donors.
   - Misconceptions about the blood donation and its importance is one of the most important reasons responsible for availability of a smaller number of blood donors
   - Spreading awareness among masses is very much important to overcome this problem in future.

7. **Notes (Optional)**   :

   - If this practice is undertaken by every institute through its NSS Unit, every year, then definitely the collection of blood will be drastically increased. Also, this will help to overcome the misconception among the society as well as to enhance to blood donors in near future.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

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Science College, Nagpur.

> **Name of the Department** : **Department of Botany**
> **Name of Teacher In-charge** : **Dr. Pitambar Humane**
> **Session of Implementation** : **2020-21**
> **Name of the Class for which the** **B. Sc. Sem-III**
> **Best Practice was conducted :**
> **Number of students benefitted** : **B. Sc. Sem-III**

1. **Title of the Practice** :
   YouTube Channel *BOTANY 4U: An Online Platform for the students of life sciences*
   https://www.youtube.com/channel/UCIwRosA7_WlILkNtlmYME2A

2. **Objectives of the Practice** :
   - To make the online lectures available based on syllabi of UG, PG and NET/SET in life sciences.

   - To assist the stakeholders in life sciences of India and abroad during Covid-19 pandemic

   - To assist stakeholders in life sciences for career opportunities in life science in India and abroad.

   - To assist the stakeholders in life sciences for literature

3. **The Context** :
   - In covid-19 pandemic it was very difficult to teach the students as online teaching was new to everyone. Even the students were not able to access the online classes due to poor network. The YouTube Channel help to overcome this problem.

   - In teaching learning process there is lack of tricks because of this the students are unable to remind the topics easily, the lectures which are made available are mostly based on tricks and easy to understand for preparation of examination.

4. **The Practice** :
   - Initially the programs were organized and experts from India and abroad are requested to deliver lectures on various topics of life sciences as well as career opportunities and personality development.

   - Many online workshops were organized specially based on the syllabus of CSIR-UGC-NET

from the qualified and expert teachers from various parts of the globe.

- Syllabus oriented subjective and objective based lecture made available for the students of UG, PG and even to the students preparing for CSIR-UGC-NET in life sciences Since last many years, this practice made 1000s units of blood were collected during the camp, that definitely helped the society to save the lives.

5. **Evidence of Success** :

- More than 250 video lectures are made available on YouTube Channel BOTANY 4U and can be easily access with the help of above link or QR Code.

- More than 8,000 students are registered with the help of google form

- Online MCQs based examinations were conducted for the students of different university in Covid-19 pandemics

- More than 3,000 stakeholders are associated with this platform through Telegram Group

6. **Problems Encountered and Resources Required:**

- Restricted access to the resources physically during Covid-19 pandemic.

- Unavailability of techno savvy teachers to teach online

- Network issue to attend the classes online

- Lack of online test examination based on MCQs

- Free of cost online assistance to the students

7. **Notes (Optional)** :

- Many students contact for online assistance regarding lectures, topics and even for the literature. The students are found very happy to see such type of lectures on YouTube from the teacher teaching in higher education. More than **4500 subscribers** are associated with the channel from India and abroad. The channel is accessed in more than 7 countries across the globe. More lecture based on teaching learning in life sciences, higher education regulation and need of the hour and also, assessment and accreditation will be made available in coming near future.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
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Dr. Akhilesh V. Peshwe
Principal

Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➤ **Name of the Department** : **National Service Scheme (NSS)**
➤ **Name of Teacher In-charge** : **Dr. Pitambar Humane**
➤ **Session of Implementation** : **2020-21**
➤ **Name of the Class for which the** **NSS Volunteer**
Best Practice was conducted :
➤ **Number of students benefitted** : **NSS Volunteer**

1. **Title of the Practice** : **Tree Plantation**
2. **Objectives of the Practice** :
   - To increase green cover by plantation in college campus as well as in the places of NSS Camps.
   - To increase the awareness and importance of tree plantation.
   - To spread the msg of save trees, save environment and save earth.

3. **The Context** :
   - Tree plantation is a need of hour to save the environment so that it can help to avoid global warming.
   - Plants are the producers of universe and even shelter houses of many birds and other organisms.
   - Tree plantation help to increase rainfall and reduce soil erosion.

4. **The Practice** :
   - Tree plantation is conducted every year on 3rd August, on occasion of foundation day of Dharampeth Education Society, a parent society of the institute.
   - On the day of activity, the society members, secretory, presidents, etc. remain present for inauguration of the activity.
   - The NSS volunteers and teaching and non-teaching staff members of the college participate in the activity of plantation.

5. **Evidence of Success** :
   - The geotag photographs are preserved with NSS Unit of the college.
   - Many trees planted during tree plantation program are there on the campus.
   - Trees are also planted in the villages and schools where the NSS Camp was organized.

6. **Problems Encountered and Resources Required:**

- The conservation of environment is only possible due to tree plantation and tree plantation is not practiced everywhere without reason though there is urgent need.
- The reduced number of tress day by day as well as decrease in forest cover there is need to involve every citizen to practice tree plantation program.
- NSS Volunteers are involved in planting tree species on college campus as well as in villages where NSS Camp organized

7. **Notes (Optional)**   :

- Tree plantation is most important activity to conserve environment and mother earth to save the lives of all animals. The sustainable development is only possible by tree plantation for future generation. In the program many trees are planted on college campus as well as in villages. The activity contributes in increase in the tree cover of mother earth. This will help to provide oxygen, food and shelter for birds and other animals, shade to human beings, etc.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-Ordinator

CO ORDINATOR
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Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➤	Name of the Department	:	**Computer Science**
➤	Name of Teacher In-charge	:	**Mrs. Snehal Narale**
➤	Session of Implementation	:	**2020-21**
➤	Name of the Class for which the Best Practice was conducted :		**B. Sc. I**
➤	Number of students benefitted	:	**165**
1.	Title of the Practice	:	**IIT Spoken Tutorial Certificate Course**

2.   Objectives of the Practice   :

In the world of digitization, the implementation of ICT in higher education is the need and demand of this era. The Spoken Tutorial project take an initiative of the 'Talk to a Teacher' activity of the National Mission on Education through Information and Communication Technology (ICT), launched by the Ministry of Human Resources and Development, Government of India.The main objective of this certificate course program was to trained more number of students from mathematics, life science and home science faculty with different courses.

3.   The Context   :

At the preliminary level, college introduces the courses for the students of computer science. At the initial level students were not aware about the courses offered by IIT Spoken and training program conducted by the College. Due to unawareness they were not register themselves for the FOSS courses like C and Cpp, libreoffice suite [base] etc. To make convince the students for their active participation in the training and certification of IIT spoken is the biggest challenge while designing and framing of these courses at the initial level. Apart from the regular syllabus, providing some value addition courses to the students is also huge task as students are busy in their regular academics and extra circular activities. As the interest of the students they were admitted for courses of IIT spoken some of the courses are mapped and some of them are unmapped.

4.   The Practice   :

In this course the method which is used by the faculty to trained the students through distance learning and it is unique as students learn by their own selves (SELF Learning) and individually. To get more detail knowledge about the FOSS training will be provided to the students in the lab Hours. The college runs certificate course of IIT spoken tutorial in which trainer faculty train the students using various methods like power point, audio and video tools for the specific course for which he/she registered. Though computer based, the learning and practice is completely offline once the courses are downloaded into the

systems faculty trainer provides the study material to the students and then students listen using earphones, pause, rewind, fast forward as per their progress.

This is unique method of teaching in which students learn the different courses from their syllabus as well as advance level also through an interactive manner using simulation which understands hands on the practical application of the theoretical concepts. Self Training can improves students IT/programming/simulation skills as well improves their employment potential. GOI had taken an initiative to launch this project IIT spoken tutorial. Under IIT Spoken Tutorial project the college was introduced the certificate course in the year, 2017-2018. At the beginning of this certificate course only one course (C and CPP) was introduced for computer science students only.

The faculty takes feedback from the students every year on the courses run by the college. The college was introduced the courses from basic to advance level like Introduction to Computers,C and CPP, Arduino, Inkscape, RDBMS,Latex and Libreoffice Suite [Base] as per the need of the market .

Training faculty give some additional exercises to the students based on their certificate courses which helps them to get more detail knowledge about the subject. The faculty trained the students in offline mode, but in COVID-19 pandemic situation due to online mode of teaching, learning and flexibility of timing a sudden spurt in the no. of students getting benefited from this course. Many students get benefited with more than one certificate course which will help them to enhance and increase their concept clarity of the subject. College was introduced level wise courses to the students starting from introduction to Computers.

5.   Evidence of Success   :

The list of students appeared and passed for the online examination of IIT spoken Tutorial Certificate course keep in the department of computer science.

Some of the students get benefited from the certificate which they received after clearing the exam. Company people note this certificate at the time of selection for their company interview during the job process.

Students of computer science get enhance their subject knowledge with these courses.

 List of the Students received letter from IIT Spoken are kept in the department.

All the details regarding the practice are available on college website

https://www.dharampethscience.com/iit-spoken-tutorial-course/

6.   **Problems Encountered and Resources**
      Required   :

- At first time it was quite difficult for the faculty to make convince to the students about their enrollment for the various courses of the IIT spoken courses offer by the college. Students were unaware about the unmapped courses offered by IIT.
- Student's personal counseling helps the faculty to make them comfortable in the courses in which they were enrolled.
- It was very difficult for the faculties to handle the problems of the students during their online examination process as they were not familiar with the platform.
- Due to less no of computers, some of the students had faced the difficulty during their training program. Hence strengthen computer separate lab with internet connection required for the successful execution of these courses at our college center.
- Life science and Home Science students were not more familiar with the technology and advancement in the field of computer science. To create awareness amongst these students the college has taken an initiative to started basic introduction to computers course the students to make them more comfortable.

7. **Notes (Optional)** :

Conduction of this activity every year motivates the students to participate in more number for various courses of IIT Spoken offer by College as for those who had not participated or enrolled for the courses before. The Certificates which they got help them to place in good IT Company.

IIT SPOKEN TUTORIAL CERTIFICATE COURSE FEEDBACK ANALYSIS 2020-2021
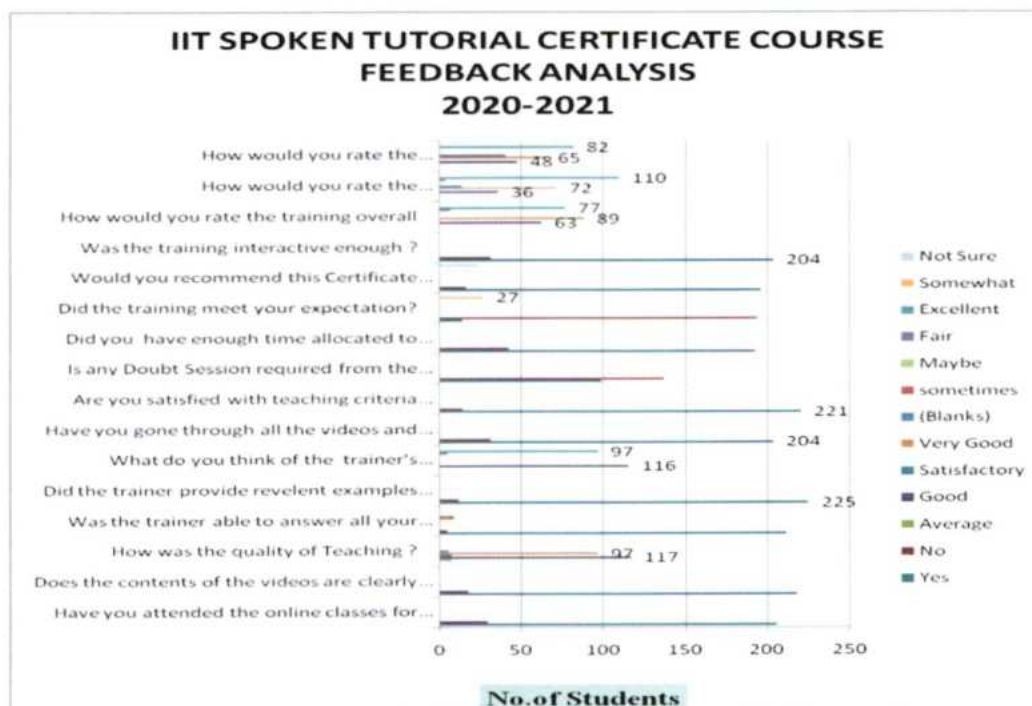
LIST OF TOPPERS FROM VARIOUS COURSES

Introduction to computers
1st topper :Saurabh
Sharma (100)

Introduction to computers
1st topper : Ashta
Sakharwade(100)

Introduction to computers
1st topper : Tanmay
Bhute(100)

Ardunio
1st topper : Isha
Gupta (75)

C and CPP
1st topper : Tanu
Mohurle (52.5)

RDBMS
1st topper : Vishal Kumar
Singh (65)

Inkscape
1st topper : Sayali
Pandharipande (86.7)

Inkscape
1st topper : Tanmay
Chaoudhari (86.7)

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

> **Name of the Department** : English
> **Name of Teacher In-charge** : Dr. Mrs. Shraddha Deshpande
> **Session of Implementation** : 2020-21
> **Name of the Class for which the** B.Sc. I
> **Best Practice was conducted :**
> **Number of students benefitted** : 04

1. **Title of the Practice** : Pictionary Making Activity

2. **Objectives of the Practice** :

The activity was aimed at making students understand difficult vocabulary in an easy manner. It also helped them to recall important words and make connections between terms and concepts. The purpose of the activity was to aid students to visualize concepts and promotes positive group dynamics.

3. **The Context** :

Converting the word into an image in the mind requires visualisation, memory, manipulation of mental images and organisation of thoughts. All of these skills are essential when reading and understanding the written word. Students in the process also learn the origin of the word and some fascinating facts attached to it. The method of learning complex word through images becomes a simpler and interesting task.

4. **The Practice** :

Internet being the most powerful source of information to students, making a Pictionary activity proved beneficial for students. Few students prepared Pictionary in PPT format which was then circulated in the subject whatsapp group for other students. The activity was repeated in 2022- 2023 and the more words were stored and used by the students to understand the text in an easy manner.

5. **Evidence of Success** :

PPTs are stored in the department.

6. **Problems Encountered and Resources**
Required :

Making Pictionary needed the knowledge of ppt making which students were unable to

make. Thus, few students could prepare it and some of the texts are yet to be covered. More students should get involved so that each text will be easy to understand. This activity is repeated in this year to get more information.

7.   **Notes (Optional)**   :

HEDGE
NOUN

- **Pronunciation:-** /hɛdʒ/
- **Meaning:-** A fence or boundary formed by closely growing bushes or shrubs.
- **Sentence:-** Tall shrubs, hedges, or vine-covered fences make a detached patio private.

Pounce

➢ Pronunciation: /paʊns/
➢ Verb
➢ Past tense: pounced; past participle: pounced(of an animal or bird of prey) spring or swoop suddenly so as to catch prey."
➢ Sentence: as he watched, a mink pounced on the vole"

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator

CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe

Principal

Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

- Name of the Department : **Mathematics**
- Name of Teacher In-charge : **Mr. Roshan K. Thakre**
- Session of Implementation : **2020-21**
- Name of the Class for which the **Entire College Students** Best Practice was conducted :
- Number of students benefitted : **Entire College Students**

1. **Title of the Practice** :
   Competitive Examination MPSC/UPSC *Abhyas Mandal*

2. **Objectives of the Practice** :
   - Know about which type of competitive Exam
   - Know about Syllabus for various competitive exam
   - How to judge your talent
   - How to test your management and planning skills
   - Increase percentage of passing ratio of students in MPSC/UPSC

3. **The Context** :
   Competitive Examination MPSC/UPSC Abhyas Mandal is a group of students and discussion of therein in online mode on zoom meeting in which one student prepare on topic that depend on syllabus of competitive exam and explain in group and make 10 MCQ from that particular topic for all student . This is best platform for student to test your strategic thinking and planning skills. This Abhyas mandal in every week Student meet online and discuss about topic.

4. **The Practice** :
   Understand your interest, Understand the Exam pattern, Good strategy, Set target, Keep Yourself updated ,Make notes, Digital learning , Textbook are available in our college library for student use.

5. **Evidence of Success** :
   Maximum number Students are used books of competitive examination that available in college library. Maximum student is interested to do MPSC/UPSC.

6. **Problems Encountered and Resources Required** :
   We need online books of competitive examination that student can directly access. and Most of the student may not interested in online mode. We require experts from that competitive exam

7. **Notes (Optional)** :

Vaishali Patle

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator
CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➢ **Name of the Department**   : **Department of Computer Science**
➢ **Name of Teacher In-charge**   : **Mrs. Ruma Rahul Kapre**
➢ **Session of Implementation**   : **2020-21**
➢ **Name of the Class for which the**   **All Stakeholder**
  Best Practice was conducted   :
➢ **Number of students benefitted**   : **More than 400**

1. **Title of the Practice**   : **Golden Jubilee Science Lecture Series**

2. **Objectives of the Practice**   :
    ❖ To provide an opportunity to meet with highly acknowledged personalities in Science and Technology in and around the globe
    ❖ To share contemporary ideas in research with students and other stakeholders working in science and technology.
    ❖ To acquaint with updates in science and technology across the globe.
    ❖ To motivate students through highly acclaimed stalwarts for the social benefits in future.
    ❖ To inculcate creativity and innovative ideas among the students

3. **The Context**   :
    We realized that one of the ways to trigger interest of the students in the subjects is giving them an opportunity to interact with the highly acclaimed scientists and renowned personalities in the field of science and technology upholding social values in life. We were aware of the fact that the students do not get adequate chance to meet high profile scientists and luminaries during college days so we consider this as a way of modification of the curriculum and permeate motivation in students to involve them in academics at dipper level and create in them a desire and curiosity for doing research.

4. **The Practice**   :
    Each year we invite a very renowned scientist to give a talk before the students on contemporary areas of research in social concern. In case, it is difficult for the esteemed invitees to visit the institute we organize the events in hybrid mode so that maximum number of stakeholders can take the advantage.
    This year the activity was conducted twice on 20th November 21 and on 5th February 22.

5. **Evidence of Success**   :

Lecture 1: You Tube Link: https://www.youtube.com/watch?v=CVclWXlNgN0&t=178s

Topic: A Webinar and Virtual Interface on "Opportunities and Challenges in Science Education".

Chief Guest: Prof. N. C. Shivaprakash, Department of Instrumentation, Indian Institute of Science, Bangalore.

Date: November 20, 2021; **Time:** 5.00 p.m.

Lecture 2: You Tube Link: https://www.youtube.com/watch?v=O-PuJjKR_7I
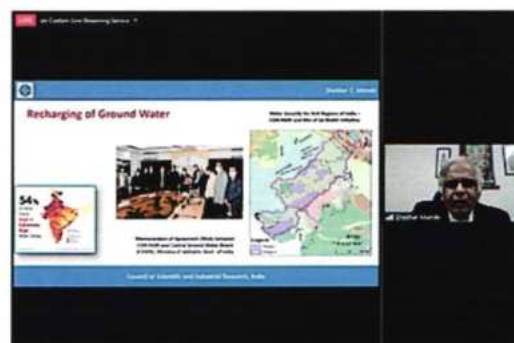
6. **Problems Encountered and**
   Resources Required   :

   1. It is difficult to get availability of high-profile dignitaries and scientists because of the very nature of work they do.
   2. Financially expensive, hence inviting international experts for offline interface is almost impossible.

7. **Notes (Optional)**   :
   Feedback Analysis of the Programme:
   The students and even the teachers were highly motivated by the interface with Prof. N. C. Shivprakash.
   Students appreciated the new ideas shared by Dr. Shekhar Mande. Students and teachers realized the importance of their participation in the '*Nadi Jodo Abhiyan*'.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➤ Name of the Department	:	**Department of Computer Science**
➤ Name of Teacher In-charge	:	**Mrs. Ruma Rahul Kapre**
➤ Session of Implementation	:	**2020-2021**
➤ Name of the Class for which the Best Practice was conducted	:	**B.Sc. Computer Science Students**
➤ Number of students benefitted :		All Computer Science Students

1. **Title of the Practice** :

   Development of Online Portal for the submission of Assignments and Conducting Online Test Examinations

2. **Objectives of the Practice** :

   - A portal is made for both Teacher and Student.
   - A huge syllabus-based question bank can be generated for online tests and assignments.
   - Working of Department will be paper less for evaluation of students.
   - Separate Log in for Teacher for maintaining student's data.
   - Students will receive all notification for uploading assignments and online test through the portal.
   - Test score generated immediately after submission of online test.
   - A detail Students Report generated at the end of the academic session.

3. **The Context** :

   To overcome the COVID-19 pandemic situation, there was need of Online portal to conduct online test examination as well as for submission of assignments. The students of computer science department were guided to develop such online portal so that test and submission of assignments can be undertaken in online mode.

4. **The Practice** :

   The portal contains a separate login for Teacher and Student. Students have access to submit their assignment and also appear for Online Test. The portal has facility of auto submitting the test immediately if student move on another tab. Teachers can create Assignment, Test, Question Bank and Student Report. PAPERLESS Data Maintenance is possible due to this portal.

5. **Evidence of Success** :

   Online Portal URL: - www.dsccsedproject001.in

6. **Problems Encountered and Resources Required** :

   Project Developed in:
   - ❖ HTML, CSS, PHP, JAVASCRIPT

Backend Used:
- ❖ PHPMYADMIN

To implement the project following Resources were required:
- ❖ Server
- ❖ Domain Name
- ❖ Disk Space
- ❖ Bandwidth
- ❖ MYSQL Databases
- ❖ Cpanel
- ❖ SSL Certificate

7.   **Notes (Optional)**   :

This online portal has been developed by the students of B.Sc. III of Computer Science Department in connection for maintenance of departmental record with reference to Student Centric Activities such as Assignment Submission, Online Exams, Online Quiz & various other classroom activities.

In the backdrop of covid-19 pandemic, as emphasis is on online & paperless working this will prove to be a boon to the department for maintenance of academic records as this portal is developed by the students as per department need.

Names of Students Involved:
1. Abhijit Muley
2. Abhishek Muley
3. Kanishk Patil
4. Prathmesh Aacharya

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

Computer Science 6 Semester 1

Welcome to the teachers portal. Manage question bank,assignments,tests and create or update student report.

EXPLORE MORE

STUDENTS

STUDENTS	VIEW	UNCHECK
POOJA GUPTA	👁	✖
MONIA BORIKAR	👁	✖
DEEPALI SHARMA	👁	✖
ROHIT DARWADEY	👁	✖
ACHAL CHAWKE	👁	✖
SUSHANT BAWANE	👁	✖

DMPDSVM
Dharampeth Education Society's
Dharampeth M.P.Deo Memorial Science College,Nagpur
(NAAC ACCREDITED: GRADE A WITH CGPA 3.01)
DEPARTMENT OF COMPUTER SCIENCE

Student   Teachers

calaxn6@email.com

....

Login

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

➢ **Name of the Department** : **Department of Computer Science**
➢ **Name of Teacher In-charge** : **Mrs. Ruma Rahul Kapre**
➢ **Session of Implementation** : **2020-21**
➢ **Name of the Class for which the**
   Best Practice was conducted : **B.Sc. SEM. II and VI Computer Science Students**
➢ **Number of students benefitted** : **25**

1. **Title of the Practice** :
Digital Poster Making on "Safety Major to curb the spread of Covid19 for 3rd wave"

2. **Objectives of the Practice** :
   ❖ Students learn how to use Online Software which are available for making poster.
   ❖ Enhances the knowledge of students regarding software
   ❖ Students are able to understand and handle online software available.
   ❖ Students are able to express themselves creatively
   ❖ Awareness will be spread amongst the students regarding Covid-19 safety and precautionary measures

3. **The Context** :
COVID-19 has become a global pandemic by infecting people of almost all the world. Two waves were faced by everyone and third wave was on its path. So to make students aware about the safety majors to stop the spread of Covid-19 was the aim of the practice. In addition to this, student also learn the use of online software was idea behind this practice.

4. **The Practice** :
Students used online software for preparation of the poster which enhance their knowledge of using online software which is not a part of syllabus. Through this practice student were able to express themselves creatively and also gauge their knowledge and awareness on the given current topic of the COVID-19.

5. **Evidence of Success** :
   Response Link: -

   https://docs.google.com/spreadsheets/d/1mYQL37Ytnjq5Z4sk1hUmF87XteA2_rNdg
   kWst-BeLyg/edit?usp=sharing

6. **Problems Encountered and**
   Resources Required :

   The students who were living in the villages side were facing network issues for using online software to make poster.
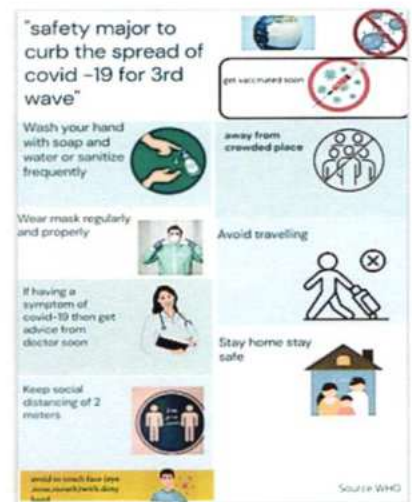
The notice to conduct the activity was announced on 15th May 2021 but due to COVID-19 pandemic, some of the students were facing some technical issues, sometimes network issues, sometimes health issues so the submission date was continuously postponed. And finally received the responses in the month of June.

Resource Required:

Online Software for making Poster

7.   **Notes (Optional)**   :

For making digital poster students uses many online software available. First they search which online software can be used to make the digital poster then they decided particular software according to their thought process of making poster. At the end they made beautiful posters by keeping their moral high, keeping themselves busy and keeping positive attitude in such difficult situation of COVID-19 wave. Through this activity student learned how to use online software and also presents their ideas and thoughts on the current topic of Safety Major to curb the spread of Covid19 for 3rd wave

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal

Principal
Dharampeth M.P. Deo Memoria.
Science College, Nagpur.

❯ **Name of the Department** : Physics
❯ **Name of Teacher In-charge** : Lt. Dr. Prashant Ambekar
❯ **Session of Implementation** : 2020-21
❯ **Name of the Class for which the** B.Sc. I, II, III (No participation of students)
   Best Practice was conducted :
❯ **Number of students benefitted** : Entire B.Sc. students

1. **Title of the Practice** :
   Development of useful apparatus using house hold electronic waste

2. **Objectives of the Practice** :
   - To make use of house hold electronic waste

   - To minimise the cost of experiment with proper insight in to the working of the apparatus.

   - To design and develop usable equipment/ apparatus out of waste

3. **The Context** :
   The Department of Physics has organized the said workshop designed and conducted by Lt. Dr. P. W. Ambekar for the second time. The main motto of the workshop is to motivate colleagues towards research and innovations apart from the regular study

4. **The Practice** :
   In this workshop, the faculty members are asked to bring the household electronic waste such as outdated mobile chargers, electronic gadgets etc. With a minimal effort and materials, they are guided to develop useful items, such as power supplies for appropriate loads, LED drivers, LASER diode drivers etc. This indeed gives rise an advantage such as designing and fabricating low cost equipments by reducing the carbon footprint.

5. **Evidence of Success** :
   The practice is a year-round work which updates the desired product which is to be developed for the experimental purpose. Few portable laser sources have been developed using old mobile charger (electronic waste) and laser diodes and resisters. The assembly was encapsulated inside a case of non-working pot- meter. This enables to fabricate required quantity of LASER sources for experimental purpose such as Wavelength determination using plane diffraction grating, divergent angle determination, total internal reflection experiment, finding focal length of lenses and many more.
   The LED with colorless encapsulation of different wavelengths were also used in fabricating an equipment for determination of Planck's constant and to study the characteristics of
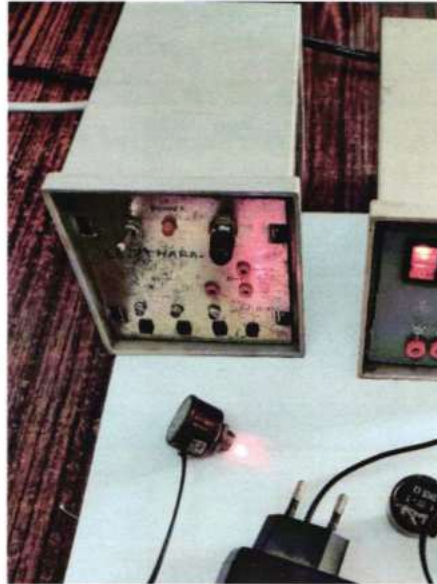
LEDs and finding their knee voltages and their relationships with the emitted wavelengths.

6. **Problems Encountered and**
   Resources Required   :

   Time was the limit and the resources were insufficient to develop a marketable equipment.

7. **Notes (Optional)**   :
   The Developed equipments are shown in following pictures

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE,
North Ambazari Road, Near Ambazari Lake, Nagpur

NAAC ACCREDITED GRADE 'A' WITH CGPA 3.01 (Third Cycle)

CRITERION-VII

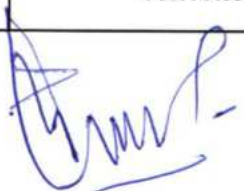**Institutional Values and Best Practices**

YEAR-3
2019-20

7.2.1

Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual during the years 2019-20

SSR: 2023 FOR NAAC FOURTH CYCLE

DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE, NAGPUR

7.2.1

Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual during the years 2019-20

LIST OF ACTIVITIES 2019-20

Sr. No	Title of the Best Practice	Name of Department or Committee	Name of the In-charge
1.	Maintenance through MCVC (PTCI	Minimum Competency and Vocational Course Department	Mr. Atul Moghe
2.	Blood Donation	National Service Scheme (NSS)	Dr. Pitambar Humane
3.	YouTube Channel BOTANY 4U: An Online Platform for the students of life sciences	Department of Botany	Dr. Pitambar Humane
4.	The Study of floristic biodiversity	Department of Botany	Dr. Pitambar Humane
5.	Tree Plantation	National Service Scheme (NSS)	Dr. Pitambar Humane
6.	Publication of Departmental Magazine, "PEARLS"	Chemistry	Dr. Vaishali P. Meshram
7.	Skill development program - Certificate Course in Enhancing Computer Skills through Ms-word' in collaboration with department of Computer Science.	Computer Science	Mrs. Snehal Narale
8.	IIT Spoken Tutorial Certificate Course	Computer Science	Mrs. Snehal Narale
9.	Seminar on "Writing Scientific Research Article/Paper"	Computer Science	Mrs. Snehal Narale

10.	Cyber Security Awareness	Electronics Department	Prof. Mrs. Varsha Rangari
11.	Funnytoold Drawing	Electronics Department	Prof. Mrs. Varsha Rangari
12.	Cover page Making Activity	Department of English	Dr. Mrs. Shraddha Deshpande
13.	Project Melghat: A Social Responsibility	IQAC Dharampeth College& Bharat Vikas Parishad	Mrs. Ranjana Ku lat
14.	Conduct of a survey of non-communicable diseases and their risk factors among adults in Nagpur	Department of Home Science	Mrs. Meghna Pandit
15.	Kitchen Waste to Organic Compost	Department of Home Science	Mrs. M. M. Deshpande & Pradnya Bagalkote
16.	Cook book /manual on regional recipe of Chiwada	Department of Home Science	Mrs. M. M. Deshpande & Pradnya Bagalkote
17.	Digital Poster Making Competition on "Parallelism of Corona and Computer Virus Transmission	Department of Computer Science	Mrs. Ruma Rahul Kapre
18.	Golden Jubilee Science Lecture Series	Department of Computer Science	Mrs. Ruma Rahul Kapre
19.	Vermicomposting and Verm culturint by using green waste and Nirmalya collection	Department of Zoology	Dr. K. M. Patu rka r

Prof. Pitambar Humane
IQAC Coordinator

Dr. Akhilesh Peshwe
Principal

> **Name of the Department** : **Maintenance Department**
> **Name of Teacher In-charge** : **Mr. Atul Moghe**
> **Session of Implementation** : **2019-20**
> *(Highly internalized at least 15-year-old practice)*
> **Name of the Class for which the** **Best practice offers services to all the**
> **Best Practice was conducted** : **departments and entire premises of the institution.**
> **Number of students benefitted** : **All the students get benefit of maintenance services**

1. **Title of the Practice** : **Maintenance through MCVC (PTC)**

2. **Objectives of the Practice** :
    - To minimize maintenance cost of the institutions
    - Entrepreneurship Development Opportunities for Students
    - Skills set development of students

3. **The Context** :
    Maintenance cost of equipment and gadgets in all the departments was quite much. Labor is always expensive. Reducing this cost was one of the top most priority of the institution hence this practice started long time back. We were required to provide opportunity for students to gain experience and develop their skills so that they go out of the college with confidence.

4. **The Practice** :
    The Maintenance Department of the institution renders its services to all the departments of the institution and attends breakdown in the power supply or electricity related issues. The department attempts to resolve the campus issues innovatively and creatively. The motion sensitive sensors developed by the department are used in the wash areas and toilets. Winding of all the fans is done in the maintenance departments. LED tube lights/bulbs; solar system maintenance

5. **Evidence of Success** :
    One of the best practices of this department is that the department *assembles* brand new computers using branded parts saving at least Rs. 5000/- per assembly of the machine. *80*

% machines of our institution have been assembled by the Maintenance Department. Maintenance of electrical fixtures, wiring, solar system etc. is done through the department. Department has developed a patent. Department has installed motion sensitive device for toilets and wash areas. Major contribution in saving revenue on maintenance.

6. **Problems Encountered and**
    Resources Required   :
    Less staff for maintenance department. All the issues of maintenance cannot be handled; hence some AMC are always required.

7. **Notes (Optional)**   :
    Honorable Peer Team Members of the 3rd Cycle appreciated the contribution of Maintenance Department.

(Mr. Atul Moghe)
Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator
CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal
PRINCIPAL
Dharampeth M. P. Deo Memorial
Science College, Nagpur.

- Name of the Department : National Service Scheme (NSS)
- Name of Teacher In-charge : Dr. Pitambar Humane
- Session of Implementation : 2019-20
- Name of the Class for which the : NSS Volunteer
  Best Practice was conducted :
- Number of students benefitted : NSS Volunteer

1. **Title of the Practice** : **Blood Donation**
2. **Objectives of the Practice** :

   - Organization of blood donation camp in memory of Late. Vinayakrao Phatak, on 8th August in every year as well as during the NSS Camp in villages.
   - To inculcate the importance and need of blood donation as a social responsibility
   - To take care the supply of blood to every needy person in the society in emergency. Organization of rallies to spread the awareness about the blood donation benefits and its future prospects.

3. **The Context** :

   - . Blood and blood components are not generated in the laboratory and hence it must be donated by the individual
   - Many misconceptions among the society which leads to collection of less amount of blood
   - Inability to fulfill the need of blood for different patients by existing blood banks

4. **The Practice** :

   - Organization of blood donation camp in memory of Late Vinayakrao Phatak in the institute, making this practice frequent repetition every year
   - The blood is collected by Hedgewar Blood Bank during the blood donation camp and certificates are given to every donor.
   - Many students after knowing the importance of blood donation, come forward to donate the blood, this helps them to understand the importance of blood donation and social responsibility.
   - Since last many years, this practice made 1000s units of blood were collected during the camp, that definitely helped the society to save the lives.

5. **Evidence of Success** :

   - The list of blood donors and geotag photographs are preserved with NSS Unit of the college.
   - Also, the list of blood donors from the blood donation camp is available with

Hedgewar Blood Bank

- The collected blood was used to save the many lives through Hedgewar Blood Bank.

6. **Problems Encountered and**
   Resources Required   :

   - Though there is urgent need of blood to the society in every medical emergency, there is crunch of blood in blood banks, because of a smaller number of blood donors.
   - Misconceptions about the blood donation and its importance is one of the most important reasons responsible for availability of a smaller number of blood donors
   - Spreading awareness among masses is very much important to overcome this problem in future.

7. **Notes (Optional)**   :

   - If this practice is undertaken by every institute through its NSS Unit, every year, then definitely the collection of blood will be drastically increased. Also, this will help to overcome the misconception among the society as well as to enhance to blood donors in near future.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
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SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➤ **Name of the Department**   :   **Department of Botany**
➤ **Name of Teacher In-charge**   :   **Dr. Pitambar Humane**
➤ **Session of Implementation**   :   **2019-20**
➤ **Name of the Class for which the**   **B. Sc. Sem-III**
Best Practice was conducted :
➤ **Number of students benefitted** :   **B. Sc. Sem-III**

1. **Title of the Practice**   :
    YouTube Channel *BOTANY 4U: An Online Platform for the students of life sciences*
    https://www.youtube.com/channel/UCIwRosA7_WlILkNtlmYME2A

2. **Objectives of the Practice**   :
    - To make the online lectures available based on syllabi of UG, PG and NET/SET in life sciences.

    - To assist the stakeholders in life sciences of India and abroad during Covid-19 pandemic

    - To assist stakeholders in life sciences for career opportunities in life science in India and abroad.

    - To assist the stakeholders in life sciences for literature

3. **The Context**   :
    - In covid-19 pandemic it was very difficult to teach the students as online teaching was new to everyone. Even the students were not able to access the online classes due to poor network. The YouTube Channel help to overcome this problem.

    - In teaching learning process there is lack of tricks because of this the students are unable to remind the topics easily, the lectures which are made available are mostly based on tricks and easy to understand for preparation of examination.

4. **The Practice**   :
    - Initially the programs were organized and experts from India and abroad are requested to deliver lectures on various topics of life sciences as well as career opportunities and personality development.

    - Many online workshops were organized specially based on the syllabus of CSIR-UGC-NET from the qualified and expert teachers from various parts of the globe.

    - Syllabus oriented subjective and objective based lecture made available for the

students of UG, PG and even to the students preparing for CSIR-UGC-NET in life sciences Since last many years, this practice made 1000s units of blood were collected during the camp, that definitely helped the society to save the lives.

5. **Evidence of Success** :

    *   Data regarding the flora studied in students' centric projects were collected and stored in the department. Many photographs were also taken during the survey, which help the upcoming students to guide them in identification and actual pictures of the plants.

    *   This data will be useful in compilation of this work in the form of field guide for the students in near future. Such type of practices definitely assists the students in enhancing their interest in the subject as well as to inculcate research attitude among them.

6. **Problems Encountered and Resources Required:**

    *   Restricted access to the resources physically during Covid-19 pandemic.

    *   Unavailability of techno savvy teachers to teach online

    *   Network issue to attend the classes online

    *   Lack of online test examination based on MCQs

    *   Free of cost online assistance to the students

7. **Notes (Optional)** :

    *   Many students contact for online assistance regarding lectures, topics and even for the literature. The students are found very happy to see such type of lectures on YouTube from the teacher teaching in higher education. More than 2500 subscribers are associated with the channel from India and abroad. The channel is accessed in more than 7 countries across the globe. More lecture based on teaching learning in life sciences, higher education regulation and need of the hour and also, assessment and accreditation will be made available in coming near future.

Prof. Pitambar Humane

IQAC Co-Ordinator

Name & Signature of

In-Charge of the Practice

Dr. Akhilesh V. Peshwe

Principal

- ➤ **Name of the Department** : **Botany**
- ➤ **Name of Teacher In-charge** : **Dr. Pitambar Humane**
- ➤ **Session of Implementation** : **2019-20**
- ➤ **Name of the Class for which the** **B.Sc. Sem-III**
  Best Practice was conducted :
- ➤ **Number of students benefitted** : **B.Sc. Sem-III Class**

1. **Title of the Practice** : **The Study of floristic biodiversity**
2. **Objectives of the Practice** :

   - To study the angiosperms around us and to know the local flora this activity is practiced in nearby college campus as well as in the village premises where NSS Camps are organized.

   - To make the students aware about the research activities in angiosperm taxonomy.

   - To prepare the students for conservation of environment for sustainable development

   - To make the student familiar with composition of the local flora and its importance in environment.

3. **The Context** :

   - As a student and teacher of Botany, field-based study was found difficult to the students, but is practical based and very much important for the subject students. Motivation of the students for field study as well as teaching them botanical names, plant identification is a challenging job.

   - Also, use of flora in field is not possible hence, its use in identification were taught in laboratory. This practice is utmost necessary for the Botany students and hence all the problems were overcome for implementation of this activity.

4. **The Practice** :

   - Such student centric projects like field visits to explore Angiosperm flora of different places is uncommon in UG classes, hence students entering in PG after involvement in such activities, are more knowledgeable and well-versed about the basic things in the subject.

   - Also, the research attitude is developed among the students with participation in such

activities.

5. **Evidence of Success** :
   - Data regarding the flora studied in students' centric projects were collected and stored in the department. Many photographs were also taken during the survey, which help the upcoming students to guide them in identification and actual pictures of the plants.

   - This data will be useful in compilation of this work in the form of field guide for the students in near future. Such type of practices definitely assists the students in enhancing their interest in the subject as well as to inculcate research attitude among them.

6. **Problems Encountered and Resources Required:**
   - Management of time in academic time table for field visit is an important thing in implementation of this activity.

   - Identification of interested students for field study is necessary during this activity. Accordingly, the method was followed and students were taken for fiend visits in nearby area of the institution as well as during NSS Camp.

7. **Notes (Optional)** :
   - Students are taken into the field in college campus, nearby college i.e., Ambazari lake premises and even the place where NSS Camps are organized. The HOD of Botany provides the scientific names of the plants to the students found common the areas.

   - The information about the ethnobotanical uses is given while studying in the field. The listing of the plants is made along with their scientific information and ethnobotanical data.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

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Dr. Akhilesh V. Peshwe

Principal
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Science College, Nagpur.

> **Name of the Department** : **National Service Scheme (NSS)**
> **Name of Teacher In-charge** : **Dr. Pitambar Humane**
> **Session of Implementation** : **2019-20**
> **Name of the Class for which the** **NSS Volunteer**
> **Best Practice was conducted :**
> **Number of students benefitted** : **NSS Volunteer**

1. **Title of the Practice** : **Tree Plantation**

2. **Objectives of the Practice** :
   - To increase green cover by plantation in college campus as well as in the places of NSS Camps.
   - To increase the awareness and importance of tree plantation.
   - To spread the msg of save trees, save environment and save earth.

3. **The Context** :
   - Tree plantation is a need of hour to save the environment so that it can help to avoid global warming.
   - Plants are the producers of universe and even shelter houses of many birds and other organisms.
   - Tree plantation help to increase rainfall and reduce soil erosion.

4. **The Practice** :
   - Tree plantation is conducted every year on 3rd August, on occasion of foundation day of Dharampeth Education Society, a parent society of the institute.
   - On the day of activity, the society members, secretory, presidents, etc. remain present for inauguration of the activity.
   - The NSS volunteers and teaching and non-teaching staff members of the college participate in the activity of plantation.
     -

5. **Evidence of Success** :
   - The geotag photographs are preserved with NSS Unit of the college.
   - Many trees planted during tree plantation program are there on the campus.

- Trees are also planted in the villages and schools where the NSS Camp was organized.

6. **Problems Encountered and Resources Required:**
   - The conservation of environment is only possible due to tree plantation and tree plantation is not practiced everywhere without reason though there is urgent need.
   - The reduced number of tress day by day as well as decrease in forest cover there is need to involve every citizen to practice tree plantation program.
   - NSS Volunteers are involved in planting tree species on college campus as well as in villages where NSS Camp organized
   -

7. **Notes (Optional)** :
   - Tree plantation is most important activity to conserve environment and mother earth to save the lives of all animals. The sustainable development is only possible by tree plantation for future generation. In the program many trees are planted on college campus as well as in villages. The activity contributes in increase in the tree cover of mother earth. This will help to provide oxygen, food and shelter for birds and other animals, shade to human beings, etc.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-Ordinator

Dr. Akhilesh V. Peshwe

Principal

➢ **Name of the Department** : Chemistry

➢ **Name of Teacher In-charge** : Dr. Vaishali P. Meshram

➢ **Session of Implementation** : 2019-20

➢ **Name of the Class for which the** All Semester
Best Practice was conducted :

➢ **Number of students benefitted** : All chemistry Students

1. **Title of the Practice** :

Publication of Departmental Magazine, "PEARLS"

2. **Objectives of the Practice** :

- Spread awareness about how to write scientific articles, avoid plagiarism during the publication of any scientific articles, copy right rules, practical thinking, etc.
- To get the platform to publish their interesting topics.

3. **The Context** :

The subject related and other thoughts are always running in student's mind. Sometime students face difficulties in how and what to write in scientific articles what type of matter contents of articles and topic of articles so our department decide to do the practice of writing of articles with their own interest and decide theme of articles which are related with chemistry topic or syllabus also

4. **The Practice** :

The students opt for chemistry as one of the subjects are notified to send their ideas/ write-ups and matter to be published for the PEARLS magazine. After critically look, selected articles are edited and then a magazine is published on college level under the Alchemy society of the department.

5. **Evidence of Success** :

Cover page theme of magazine, Photographs of activities, published magazine

6. **Problems Encountered and**
Resources Required

:

Students not referred Books properly so they have less matter and do not understand how to handle the running matter so they required proper guidance and updating the knowledge while writing articles.

7. **Notes (Optional)** : NA

PEARL
2021-2022
ALCHEMY
DEPARTMENT OF CHEMISTRY

Dr. Vaishali P. Meshram

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator

Dr. Akhilesh V. Peshwe

Principal

➢	Name of the Department	:	**Computer Science**
➢	Name of Teacher In-charge	:	**Mrs. Snehal Narale**
➢	Session of Implementation	:	**2019-20**
➢	Name of the Class for which the Best Practice was conducted	:	**B. Sc. II**
➢	Number of students benefitted :		**09**

1. **Title of the Practice** :

   Skill development program – Certificate Course in Enhancing Computer Skills through Ms-word' in collaboration with department of Computer Science.

2. **Objectives of the Practice** :

   To develop basic computer related skills in students so that they can use ICT tools in their daily academic life for processing their seminars, assignments and Practical journals. Also to impart the advance knowledge of computers to previously trained students.

3. **The Context** :

   In traditional schooling and at junior level very few students find opportunity to acquire skill in handling computers and regularly using it for academic purpose to prepare their worksheets , assignments and record books and hence are not trained enough to handle computes for using MS-word, MS-excel & PowerPoint. In the present age, technology is everywhere, even in the classroom. The modern classroom boasts of audio-visual teaching methods. This has made learning interesting for students. In this technology-oriented world, it is needless to say that the importance of computers has also increased a lot. The students need to learn computers as it helps to improve their work. He most basic jobs involve computers in the modern business world. To help students prepare for a wide variety of possible careers and joining classes based on computer education, teaching them how to use computers is very important. The basic knowledge helps them to join advanced courses based on the computer in the future

4. **The Practice** :

   Keeping above context in the department of Microbiology in collaboration with department of computer science conducted the Two week certificate course on '**Enhancing computer skills through Ms–office'** from 16th September 2019 to 28th September 2019. The participation and enrolment of the students in this course was voluntary. In this course around 09 previously trained students (2018-19) were enrolled and trained to acquire advanced knowledge in Ms-word. The students were given access to computers to acquire

hands on training. Also students were guided for using new tools and methods of communication. This helps them to have online communication with their teachers. They can also check their lesson plans or grades online. The students can send assignments to their teachers from any place. The students were given access to computers to acquire hands on training. Also students were guided for using new tools and methods of communication. This helps them to have online communication with their teachers. They can also check their lesson plans or grades online. The students can send assignments to their teachers from any place. After the certificate course students were trained to make their Microbiology record books using Ms- Word.

5. **Evidence of Success**   :

Students developed confidence in handling computers for processing their daily work like seminars, practical journals, assignments etc. Self-processing of Microbiology journals by the students was the huge success of this practice.
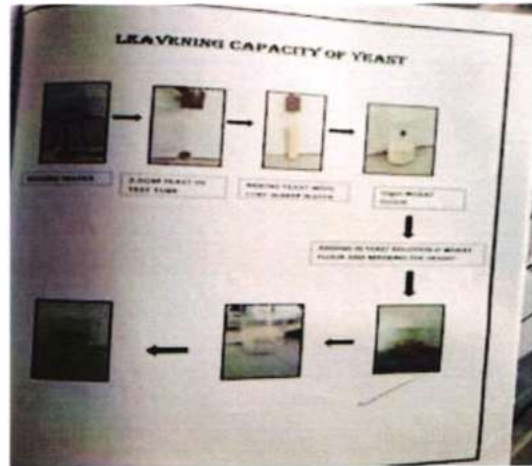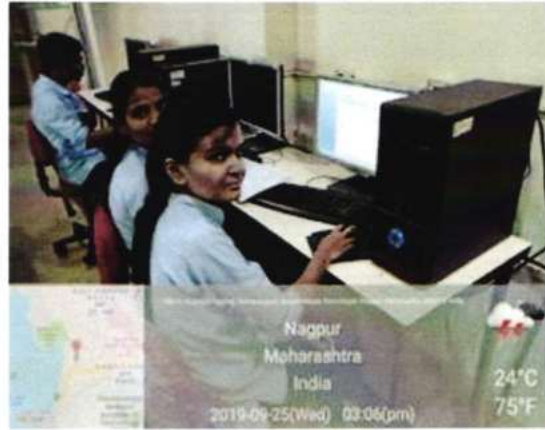
6. **Problems Encountered and Resources**
   Required   :

Students need motivation to participate in such type Workshop. Difficulty is faced in setting time table for one week workshop due to time slots of different regular subject's theory and practical classes. Also difficulty is faced in handling slow learners as some students take much of the time to acquiring computer skills. To conduct such workshops different resources like additional manpower who can individually guide students and train them is needed as well as computers and internet facility is required.

7. **Notes (Optional)**   :

At the end of this workshop students will be able to apply their knowledge in their daily activities of the college. It also helps them to get better job in the future also.

DHARAMPETH M.P. DEO
MEMORIAL SCIENCE
COLLGE, NAGPUR

MICROBIOLOGY PRACTICAL
RECORD
B.SC SEMESTER 5
SESSION : 2019-20
BATCH : T13
GROUP : CBM

Name & Signature of In-Charge of the Practice

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➢	Name of the Department	:	**Computer Science**
➢	Name of Teacher In-charge	:	**Mrs. Snehal Narale**
➢	Session of Implementation	:	**2019-2020**
➢	Name of the Class for which the Best Practice was conducted	:	**B. Sc. I**
➢	Number of students benefitted	:	**165**
1.	Title of the Practice	:	**IIT Spoken Tutorial Certificate Course**

2.   Objectives of the Practice   :

In the world of digitization, the implementation of ICT in higher education is the need and demand of this era. The Spoken Tutorial project take an   initiative of the 'Talk to a Teacher' activity of the National Mission on Education through Information and Communication Technology (ICT), launched by the Ministry of Human Resources and Development, Government of India.The main objective of this certificate course program was to trained more number of students from mathematics, life science and home science faculty with different courses

3.   The Context   :

At the preliminary level, college introduces the courses for the students of computer science. At the initial level students were not aware about the courses offered by IIT Spoken and training program conducted by the College. Due to unawareness they were not register themselves for the FOSS courses like C and Cpp, libreoffice suite [base] etc. To make convince the students for their active participation in the training and certification of IIT spoken is the biggest challenge while designing and framing of these courses at the initial level. Apart from the regular syllabus, providing some value addition courses to the students is also huge task as students are busy in their regular academics and extra circular activities. As the interest of the students they were admitted for courses of IIT spoken some of the courses are mapped and some of them are unmapped.

4.   The Practice   :

It is envisaged that professionally qualified graduates with a sound knowledge of their core discipline and expertise in a concerned skill will have openings in service, industry and self-employment sectors. Spoken Tutorial is a magical Audio Video teaching tool promoting ICT enabled learning. Spoken Tutorials train in simple steps moving from simple to complex levels and give practical training of the theoretical concepts. As a result students fast track their knowledge and cope better with the course. The language used is simple and the tutorials ensure that ample instructions

and practice is provided to guarantee self-learning.

The method is distance learning and it is unique as students learn by their own selves (SELF Learning) and individually. To get more detail knowledge about the FOSS training will be provided to the students in the lab Hours. The college runs certificate course of IIT spoken tutorial in which trainer faculty train the students using various methods like power point, audio and video tools for the specific course for which he/she registered. Though computer based, the learning and practice is completely offline once the courses are downloaded into the systems faculty trainer provides the study material to the students and then students listen using earphones, pause, rewind, fast forward as per their progress.

This is unique method of teaching in which students learn the different courses from their syllabus as well as advance level also through an interactive manner using simulation which understands hands on the practical application of the theoretical concepts. Self Training can improves students IT/programming/simulation skills as well improves their employment potential. GOI had taken an initiative to launch this project IIT spoken tutorial. Under IIT Spoken Tutorial project the college was introduced the certificate course in the year, 2017-2018. At the beginning of this certificate course only one course (C and CPP) was introduced for computer science students only.

The faculty takes feedback from the students every year on the courses run by the college. The college was introduced the courses from basic to advance level like Introduction to Computers, C and CPP, Arduino, Inkscape, Python , Latex and Advance CPP as per the need of the market .
Training faculty give some additional exercises to the students based on their certificate courses which helps them to get more detail knowledge about the subject.

5. **Evidence of Success**   :

   • The list of students appeared and passed for the online examination of IIT spoken Tutorial Certificate course kept in the department of computer science and certificates were distributed to the students.

   • Some of the students get benefited from the certificate which they received after clearing the exam. Company people note this certificate at the time of selection for their company interview during the job process.

   • Students of computer science get enhance their subject knowledge with these courses.

   • All the details regarding the practice are available on college website
     https://www.dharampethscience.com/iit-spoken-tutorial-course/

6. **Problems Encountered and Resources Required** :

- At first time it was quite difficult for the faculty to make convince to the students about their enrollment for the various courses of the IIT spoken courses offer by the college. Students were unaware about the unmapped courses offered by IIT.
- Student's personal counseling helps the faculty to make them comfortable in the courses in which they were enrolled.
- It was very difficult for the faculties to handle the problems of the students during their online examination process as they were not familiar with the platform.

Due to less no of computers, some of the students had faced the difficulty during their training program. Hence strengthen computer separate lab with internet connection required for the successful execution of these courses at our college center. Life science students were not more familiar with the technology and advancement in the field of computer science. To aware these students the college started basic introduction to computers course the students to make them more comfortable

7. **Notes (Optional)** :

Conduction of this activity every year motivates the students to participate in more number for various courses of IIT Spoken offer by College as for those who had not participated or enrolled for the courses before. The Certificates which they got help them to placed in good IT Company.
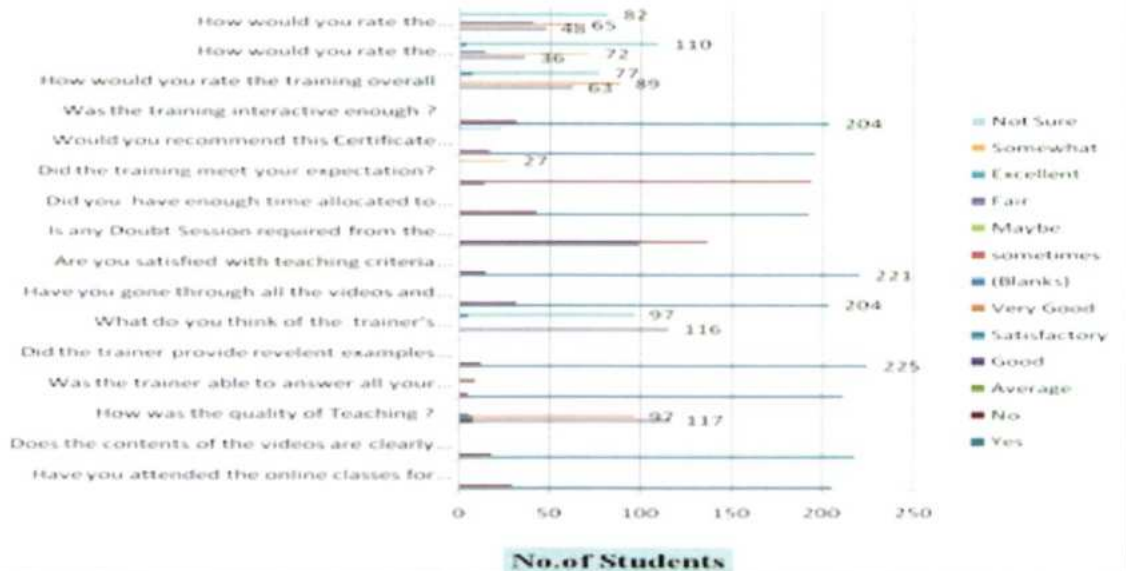

| C and CPP | C and CPP | Inkscape |
| 1st topper: Pooja Gupta | 2nd topper: Monika Borikar | 3nd topper: Sushma Lilhare |

IIT SPOKEN TUTORIAL CERTIFICATE COURSE
FEEDBACK ANALYSIS
2019-2020

Chart legend: Not Sure, Somewhat, Excellent, Fair, Maybe, sometimes, (Blanks), Very Good, Satisfactory, Good, Average, No, Yes

Questions (top to bottom):
- How would you rate the...
- How would you rate the...
- How would you rate the training overall
- Was the training interactive enough ?
- Would you recommend this Certificate...
- Did the training meet your expectation?
- Did you have enough time allocated to...
- Is any Doubt Session required from the...
- Are you satisfied with teaching criteria...
- Have you gone through all the videos and...
- What do you think of the trainer's...
- Did the trainer provide revelent examples...
- Was the trainer able to answer all your...
- How was the quality of Teaching ?
- Does the contents of the videos are clearly...
- Have you attended the online classes for...

X-axis: No.of Students (0, 50, 100, 150, 200, 250)

Values visible: 82, 65, 110, 72, 36, 77, 89, 63, 204, 27, 221, 204, 97, 116, 225, 92, 117

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Name & Signature of In-Charge of the Practice

Dr. Akhilesh V. Peshwe
Principal

Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➤	**Name of the Department**	:	**Computer Science**
➤	**Name of Teacher In-charge**	:	**Mrs. Snehal Narale**
➤	**Session of Implementation**	:	**2019-20**
➤	**Name of the Class for which the Best Practice was conducted :**		**B. Sc. III**
➤	**Number of students benefitted**	:	**17**
1.	**Title of the Practice**	:	**Seminar on "Writing Scientific Research Article/Paper"**

2.   Objectives of the Practice   :

Research in innovation is the new era for the students. Conduction of such type of the workshop helps the students to create and develop their interest and idea in the field of Research. Students also get detail knowledge of the topic of the research and its future scope. They also understand the whole process of writing article or paper on their topic of interest in the computer science or recent trends and technology used in this particular subject. It would help the students in the selection of topic of interest as well as writing a Research paper or article.

3.   The Context   :

At the initial level the response of the students were very poor as if they were not aware about the research area and its working pattern for UG Students. It is very difficult for the faculty to convince them to attend such types of workshops and seminar.

This seminar was designed only for the interested students those who really want to do research and show their interest to do the research.   Faculty had interacts with the students during her regular classes and ask them whether they are interested or not.

4.   The Practice   :

Writing scientific article or research paper is a basic skill that must be learned by the students only using repetitive practice of reading, writing and revising. This workshop is intended to impart researchers/students with basic skills in writing and publishing a scientific paper in a peer reviewed journal. The department of computer science takes an initiative to train the students in the field of research by conducting such type of seminar to promote the students to work in the research area. UG students are unaware about this particular area of research as compare to the students of post graduation. To break this constraints the department conducted the workshop based on the research paper and the compete process of writing research paper. This would be a unique activity for the students of computer science organized by the department from last tew years continuously. In higher education of India researcher plays a vital role to build the nation more ahead and

grow in the highest level.

In this workshop the list of the contents will be covered like

- What is research? What it its need?
- What is the aim and objectives of conducting this workshop based on the research paper or article?
- What would be expected outcome/results from the workshop?
- Difference between research paper and article
- Different steps that must be follow by the students while writing scientific article /paper.
- Detailing of writing scientific research paper and do's and don'ts of it. Some of the points have been included as given below section wise.
- **Formatting Section**
- ❖ Use active voice
- ❖ Follow the style guide for publication
- ❖ Organize the paper in the proper order
- **Writing the Sections must include How to**
- ❖ Start with the Materials and Methods section.
- ❖ Describe the results in the Results section.
- ❖ Interpret your data in the Discussion section.
- ❖ Review the literature in the Introduction
- ❖ Summarize the paper in the Abstract.
- ❖ Write a descriptive Title.
- **Making the Figures and Tables**
- ❖ Write figure legends that describe the data
- **Citing Your Sources Properly.**

The workshop will also the help the student participants to understand how to outline a scientific article or paper, become familiar to construct an argument in a scientific manuscript, do effective literature search and review, manage references using different software, understand authorship, plagiarism and ethics in publication.

5. **Evidence of Success**   :

At the end of the workshop student participants would understand the complete process of writing scientific research article /paper and how to publish the paper or article in the renowned journal. If participants have sufficient data to begin writing a paper, they could work on the draft during group work. Some of the student participants show their interest to write an article or research paper. They start reading and searching the topic of their interest to write an article at the initial level. At the initial level they just tried to copy the concept from the net and reframe it. But after this seminar some of them really understand

what are research and its nothing to copy the data but using the basic idea we need to add our innovations into it. Some of the students submit their article/paper to the faculty and some are working on it .

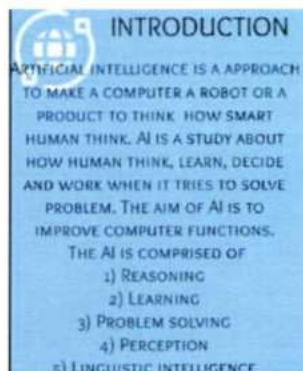List of the Students those who were attended the seminar is available in the department.
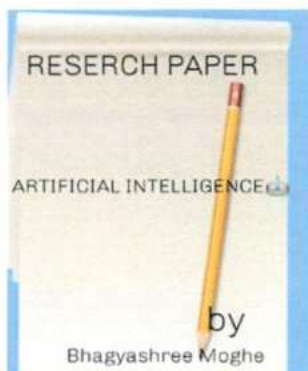
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6. **Problems Encountered and Resources Required** :

When this workshop was conducted first time it was quite difficult for the faculty (Mrs. Snehal Narale) to make convince to the students how this would help them in their future. Time to time motivation is required for the students and the practice of arranging such types of workshop now it is quite easy to make the registration for the students. Due to time constraint the workshop is organized for one day only. But the department has planned to invite some guests to give more additional information about the research area and what is the scope of this for UG students in their life.

7. **Notes (Optional)** :

If this practice is undertaken by the every year it would help to increase number researcher those who have really interest to do research and create job opportunities in research field

RESERCH PAPER

ARTIFICIAL INTELLIGENCE

by
Bhagyashree Moghe

INTRODUCTION

ARTIFICIAL INTELLIGENCE IS A APPROACH TO MAKE A COMPUTER A ROBOT OR A PRODUCT TO THINK HOW SMART HUMAN THINK. AI IS A STUDY ABOUT HOW HUMAN THINK, LEARN, DECIDE AND WORK WHEN IT TRIES TO SOLVE PROBLEM. THE AIM OF AI IS TO IMPROVE COMPUTER FUNCTIONS. THE AI IS COMPRISED OF
1) REASONING
2) LEARNING
3) PROBLEM SOLVING
4) PERCEPTION
5) LINGUISTIC INTELLIGENCE

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal

Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

> **Name of the Department** : **Electronics Department**
> **Name of Teacher In-charge** : **Prof. Mrs. Varsha Rangari**
> **Session of Implementation** : **2019-20**
> **Name of the Class for which the**   **Interested College Students**
> **Best Practice was conducted** :
> **Number of students benefitted** : **50 School students, total students 21785.**

1. **Title of the Practice** : *"Cyber Security Awareness"*

2. **Objectives of the Practice** :
   - To make the youth alert while working online.
   - To prevent falling prey to cyber criminals
   - To stop youth from getting indulged in cyber-crimes or similar activities.
   - To select volunteers and train them to give presentations in schools.
   - To provide them a stipend and intern certificate on successful completion of tasks.

3. **The Context** :

   This activity started in the year 2017 in collaboration with Quick Heal Foundation, Pune. The mission of this activity is to keep the kids safe online. As kids grow up in this digital age, keeping up the latest trends and technology is part of everyday life. Parents, on the other hand, are oftentimes less savvy than their kids when it comes to cyber behaviour. And due to lack of cyber awareness many crimes are happening online and is bound to increase drastically in near future. Having sensed the potential online danger, MoU was signed with Quick Heal Foundation.

4. **The Practice** :

   In the beginning of every academic year, MoU with Quick Heal Foundation, Pune was done. Interested college students were selected. They were trained by Quick Heal Foundation trainers. These students go to different colleges, take permission from the principal of that college and schedule their presentation. Before and after feedback from school students was taken after the presentation.   Also remarks from the principal were taken. At the end of this activity stipend and intern certificate is given to volunteers.

5. **Evidence of Success** :

Year	Total No. of Volunteers	No. of School targeted	Total No. of Students Beneficiaries	Total Amount earn by the Volunteers
2019-20	14	50	21785	1,25,300/-

School students learn many things like how to be secure when online. From this activity student volunteers not only earn money or certificates but also enhance their personality and confidence level.

6. **Problems Encountered and Resources**
   Required   :

   In the first year, no school principals were allowing the student Volunteers for presentation. Then they were trained how to convince them. After that they were getting permission from the school which boosted up their confidence level. This is reflected in the number of schools and number of students targeted.

7. **Notes (Optional)**   :

Name & Signature of In-Charge of the Practice

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SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

> **Name of the Department**   :   **Electronics Department**
> **Name of Teacher In-charge**   :   **Dr. Mrs. Varsha Rangari**
> **Session of Implementation**   :   **2019-20**
> **Name of the Class for which the**   **B.Sc I Electronics Students**
> **Best Practice was conducted**   :
> **Number of students benefitted**   :   **20**

1. **Title of the Practice**   :
   "Funytools Drawing"

2. **Objectives of the Practice**   :
   - To get acquainted with the concepts of electronics in creative way.
   - To encourage the students and bring the creativity in them.

3. **The Context**   :

   The objective of this activity was to encourage the creativity in students. They were told to create the cartoons explaining the electronics subject concepts and learn the concepts in a creative way.

4. **The Practice**   :

   The first year students were given explanation of different concepts and were asked to draw them in creative way. They were told to draw cartoons and color them. The activity was done in group of 2. Some did it alone.

5. **Evidence of Success**   :
   - Creative Cartoons (Please see enclosure)
   - DVV

6. **Problems Encountered and Resources**
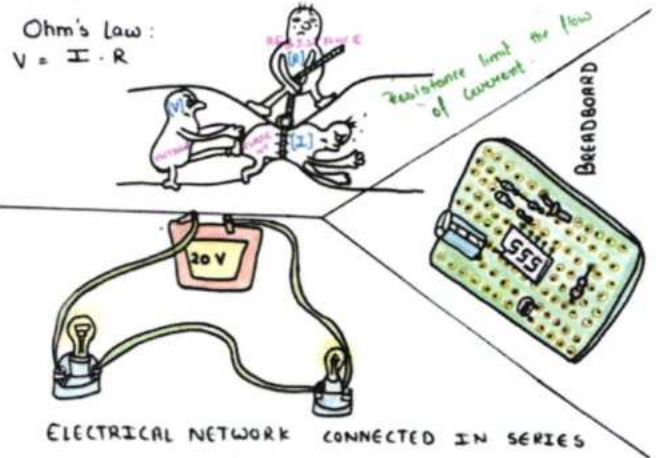   **Required**   :
   No problems encountered and resources required.

7. **Notes (Optional)**   :

LOOK ! A SPIDER ! - TOUCHES IT - -
GETS SHOCKED BY CAPACITOR
AND RESISTOR.

Ohm's law :
$V = I \cdot R$

ELECTRICAL NETWORK CONNECTED IN SERIES

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

> **Name of the Department** : English
> **Name of Teacher In-charge** : Dr. Mrs. Shraddha Deshpande
> **Session of Implementation** : 2019-20
> **Name of the Class for which the** B.Sc. I
> **Best Practice was conducted :**
> **Number of students benefitted** : 165

1. **Title of the Practice** : Cover page Making Activity

2. **Objectives of the Practice** :

To comprehend the text and assimilate it into one fine design in the form of cover page. The students after reading the text from the prescribed syllabus found out one theme and made a cover page out of it. Conversion of text into a visual mode was a challenging task for them. The designs ranged from basic to advance and creative ones, and some were adaptations too.

3. **The Context** :

The text selected for this activity showed a transition of a man from bad to good. The depiction of a man from negative to positive taught them about life skills.   They learnt that anger is an emotional state that varies in intensity from mild irritation to intense fury and rage and how important it is to overcome such a state of mind. The written story and its depiction in the visual form at the end made them realise the advantages of being a docile person.

4. **The Practice** :

Teaching literature particularly prose is a very theoretical approach to learning. This activity was to understand the way students portray emotions in their drawings of human topics to reflect their artistic, emotional, and cognitive development. Their metaphorical expressions in the form of cover page were beautifully presented.

5. **Evidence of Success** :

DVVs are stored in the department.

6. **Problems Encountered and Resources**
   Required :

The activity being a little complex few students could create original and innovative designs. Many of them took time in understanding the process involved in creating the cover page design. However, the one who create it in a presentable manner are appreciable.

7. **Notes (Optional)**   :

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

➢	**Name of the Department**	:	IQAC Dharampeth College& Bharat Vikas Parishad
➢	**Name of Teacher In-charge**	:	Mrs. Ranjana Kulat
➢	**Session of Implementation**	:	2019-20
➢	**Name of the Class for which the Best Practice was conducted :**		All Students and Staff
➢	**Number of students benefitted**	:	
1.	**Title of the Practice**	:	**Project Melghat: A Social Responsibility**

2. **Objectives of the Practice** :

To Inculcate Social Responsibility amongst Teachers & Young Students this activity was initiated A Project where in entire Staff & students Participated. Department of Home Science was thrusted with this responsibility.

3. **The Context** :

To inculcate social responsibility & values in respect to it.

4. **The Practice** :

In order to inculcate Social Responsibility among today's young Students & Staff members every Year College takes out the drive of old clothes donation on the College Campus.

5. **Evidence of Success** :

The clothes collected were handed over to Dr Avinash Satav, Incharge of Melghat Project.

6. **Problems Encountered and**   Nil
   Resources Required :

7. **Notes (Optional)** :

Project was supported by Dr.Akhilesh Peshwe,Principal ,Vice Principal, Dr Archana Kulkarni, Dr Lanjewar   IQAC Coordinator, Dr K.M.Paturkar &Prof Kulat and Shivangi.

https://thelivenagpur.com/2019/10/10/dharampeth-m-p-deo-memorial-science-college-donates-clothes-to-poor-tribals-of-melghat/

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator

CO ORDINATOR
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DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe

Principal

Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➤	Name of the Department	:	**Home Science**
➤	Name of Teacher In-charge	:	**Mrs. Meghna Pandit**
➤	Session of Implementation	:	**2019-20**
➤	Name of the Class for which the Best Practice was conducted :		**Students of Semester VI**
➤	Number of students benefitted	:	**46**

1. **Title of the Practice** :

   Conduct of a survey of non-communicable diseases and their risk factors among adults in Nagpur

2. **Objectives of the Practice** :

   Development of survey execution capabilities and practical application of subject among students

3. **The Context** :

   Non-communicable diseases (NCDs) have today become a growing epidemic, surpassing infectious diseases and adversely impacting national health systems, policies, and socio-economic developments. Management of NCD and its risk factors such as tobacco use, poor diet, physical inactivity, and obesity has garnered paramount importance under the Sustainable Development Goals (SDGs) of WHO. Awareness regarding the same is paramount for prevention of NCDs.

4. **The Practice** :

   All the participants were evaluated using a modified version of the World Health Organization (WHO) Stepwise approach to non-communicable diseases which entailed history taking, looking particularly for risk factors for NCDs and the lifestyle of the subjects. The questionnaire was developed and executed in online mode through Google Forms.

5. **Evidence of Success** :

   All students benefitted from this participative learning exercise. They conducted the surveys in a proper and unbiased manner and also gained awareness regarding the subject.

6. **Problems Encountered and Resources Required** :

   Due to the pandemic, personal contact was not possible, hence students faced difficulty in conducting the survey.

7.   Notes (Optional)   :

Ndeehpande
Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator
CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➤ **Name of the Department** : **Home Science**

➤ **Name of Teacher In-charge** : **Mrs. M. M. Deshpande & Pradnya Bagalkote**

➤ **Session of Implementation** : **2019-20**

➤ **Name of the Class for which the** **Students of Semesters- I, III, V**
   Best Practice was conducted :

➤ **Number of students benefitted** : **40**

1. **Title of the Practice** : **Kitchen Waste to Organic Compost**

2. **Objectives of the Practice** :

   - Concept of Kitchen Garden
   - Hands on training for learning the Process of making Compost
   - Students learnt the Concept of degradable & non degradable waste
   - Students gathered the Concept of recycling of waste

3. **The Context** :

   The students actively participated in the activity and were involved in the preparing the compost bin ,gave the assurance of monitoring it on regular basis. Ms. Sakshi Kubde was elected leader for monitoring .Dr Ratnakar Lanjewar IQAC coordinator made himself available for this activity .Mrs Ranjana Kulat, senior professor of the department was amongst those present .Mrs Manju Deshpande ,In charge of the Department expressed her views as to way to create awareness for the interdependent nature of Human Mankind & Environment.The Students Learnt the Concepts like recycling of waste , Concept of Kitchen Garden.

4. **The Practice** :

   In the department of home science this concept is initiated with the purpose of making the use of the waste collector in the Nutritional Practical after the cooking done by students of Home science in the subject of Nutrition .A method demonstration was arranged for the students .Students benefitted by this and as it was step wise description of process of making the compost it was easy to understand .A short video on the process is made as reference material and available for others in the Department .The manure prepared by such collected waste from the Department will be used for maintenance and care of the plants near the Department .Also of need perse it can be supplied to Botanical garden with in the campus (presently nothing such being done). A small project of kitchen garden is planned. This also needs manure so does the project can be made on large scale fulfill the need and requirement._

   Note Due to   covid19 Pandemic   the project could not take the required   measures.

5.   **Evidence of Success**   :

Due to Covid19 Pandemic, the project could not take the required measures as the college closed down

6.   **Problems Encountered and**
     Resources Required   :

Kitchen waste was made in use. Students collected the dry waste from nearby vicinity. Sand was bought by few Students.

7.   **Notes (Optional)**   :

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator

Dr. Akhilesh V. Peshwe

Principal

➤ **Name of the Department** : **Home Science**
➤ **Name of Teacher In-charge** : **Mrs. M. M. Deshpande & Pradnya Bagalkote**
➤ **Session of Implementation** : **2019-20**
➤ **Name of the Class for which the** **Students of Semesters- I, III, V**
  Best Practice was conducted :
➤ **Number of students benefitted** : **Semesters- I, III & V**
1. **Title of the Practice** : **Cook book /manual on regional recipe of** ***Chiwada***

2. **Objectives of the Practice** :

This Competition was held with an objective of developing the concept of regional importance and nutrition.
To develop competitive Spirit in Students.
To make the student aware of different avenues open for them & also motivate them to write Blogs & develop Literature, creative cooking
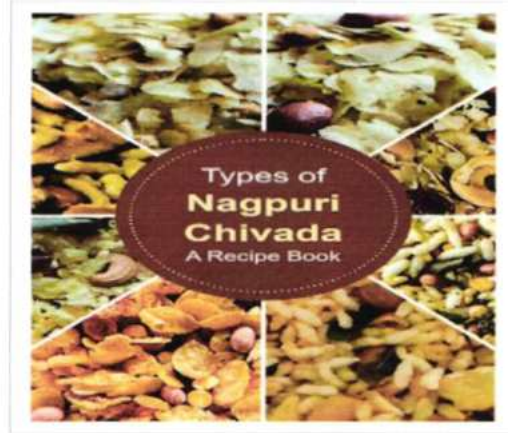
3. **The Context** :

Competition on Making of Chiwada was held in the Department to stress the importance of regional specialty. Students were motivated to make famous chiwada recipe of Vidharbha region

4. **The Practice** :

Students learnt the method of Preparation of variety of recipe in chiwada using available & regional & locally available ingredients. Students were instructed to plan the ingredients & list out the nutritional benefits. They were also instructed to follow different cooking process/methods of preparation. Focus of attention was the taste, choice of ingredients, Palatability & texture with ample of nutritional content. Activity was conducted with purpose of giving different avenues & impetus for entrepreneurship Skills.

5. **Evidence of Success** :

A manual format is prepared which can be used as Reference Material. The tittle of the Manual Book "Types of Nagpuri Chiwada ''.
A Manual on this is Published to highlight the variety in regional cooking, availability of resources, knowledge of Ingredients

6. **Problems Encountered and**
   Resources Required :

Kitchen waste was made in use. Students collected the dry waste from nearby vicinity. Sand was bought by few Students.

7.   Notes (Optional)   :

Manual is prepared as reference Material

Types of Nagpuri Chivada — A Recipe Book

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
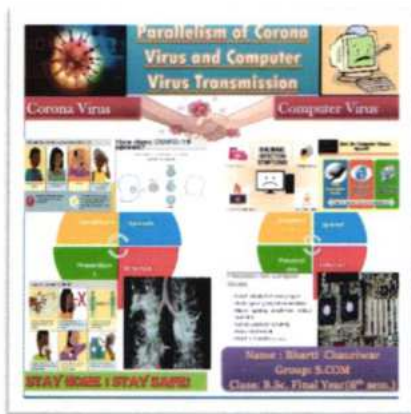**Principal**

BEST PRACTICE

➢	Name of the Department	:	Department of Computer Science
➢	Name of Teacher In-charge	:	Mrs. Ruma Rahul Kapre
➢	Session of Implementation	:	2019-2020
➢	Name of the Class for which the Best Practice was conducted	:	B.Sc. SEM. II and VI Computer Science Students
➢	Number of students benefitted	:	47

1. Title of the Practice :

Digital Poster Making Competition on "Parallelism of Corona and Computer Virus Transmission"

2. Objectives of the Practice :

❖ Students learn how to use Online Software which are available for making poster.

❖ The activity enhances the knowledge of students regarding use of software

❖ Students are able to understand and handle online software available.

❖ Students are able to express themselves creatively

❖ Students were able to compare between transmission of viruses in the machine and same with the transmission of covid virus in the human being.

3. The Context :

COVID-19 has become a global pandemic by infecting people of almost all over the world. Each and everyone were faceing the covid wave. The virus was spreading amongst the people and destroying their lives like computer virus spread from machine to machine and sometimes destories the machines. To make comparison between these two was the aim of the practice In addition to this, student also learn the use of online software was idea behind this practice

4. The Practice :

Students used online software for preparation of the poster which enhances their knowledge of using online software which is not a part of syllabus. Through this practice student were able to express themselves creatively and also surge their knowledge and awareness on the given current topic of the COVID-19.

5. Evidence of Success :

Response Link: -

https://docs.google.com/spreadsheets/d/1mYQL37Ytnjq5Z4sk1hUmF87XteA2_rNdg
kWst-BeLyg/edit?usp=sharing

6. Problems Encountered and Resources Required :

The students who were living in the villages side were facing network issues for using online software to make poster. Students also facing sometimes network, sometimes health or any other issues due to panedemic and covid wave.

Resource Required:

Online Software for making Poster

7. **Notes (Optional)** :

For making digital poster students uses many online software available. First they search which online software can be used to make the digital poster then they decided particular software according to their thought process of making poster. At the end they made beautiful posters by keeping their moral high, keeping themselves busy and keeping positive attitude in such diffcult situation of COVID-19 wave. Through this activity student learned how to use online software and also presents their ideas and thoughts on the current topic of Covid 19 transmission in public.

Prof. Pitambar Humane
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Name & Signature of In-Charge of the Practice

Dr. Akhilesh V. Peshwe
Principal

Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

- ➢ **Name of the Department** : **Department of Computer Science**
- ➢ **Name of Teacher In-charge** : **Mrs. Ruma Rahul Kapre**
- ➢ **Session of Implementation** : **2019-20**
- ➢ **Name of the Class for which the** **All Stakeholder**
  Best Practice was conducted :
- ➢ **Number of students benefitted** : **More than 500**

1. **Title of the Practice** :

   Golden Jubilee Science Lecture Series

2. **Objectives of the Practice** :

   1. To provide an opportunity to meet with highly acknowledged personalities in Science and Technology in and around the globe
   2. To share contemporary ideas in research with students and other stakeholders working in science and technology.
   3. To acquaint with updates in science and technology across the globe.
   4. To motivate students through highly acclaimed stalwarts for the social benefits in future.
   5. To inculcate creativity and innovative ideas among the students

3. **The Context** :

   On the eve of Golden Jubilee celebration of the Institute, the President, Dharampeth Education Society announced an annual organization of *Golden Jubilee Science Lecture Series* as an innovative way to apprise students with updates about Current Research in Science & Technology by providing them an opportunity to meet with extremely renowned personalities from various parts of the globe.

   The institute is trying to enhance student's academics level and their interest in Research through this platform. The direct interaction generates lot of positivity and motivation among the students.

4. **The Practice** :

   Each year we invite a very renowned scientist to give a talk before the students on contemporary areas of research in social concern. In case, it is difficult for the esteemed invitees to visit the institute the events are organized in hybrid mode so that maximum number of stakeholders can take the advantage.

   This lecture series is organized annually on various titles from science and technology. This year the activity was conducted on 22nd Dec., 2019

5. **Evidence of Success** :

   You Tube Link: https://youtu.be/5umVkuO9enQ

   Topic: The maiden lecture and interface on "Science and Spirituality"

   Chief Guest: Padma Bhushan Dr. Shri Vijay Bhatkar (Padma Shree and Maharashtra Bhushan Awardee), Hon'ble, Chancellor, Nalanda University, Rajgir, Bihar.

   Date: 22nd December, 2019; **Time:** 06:00 p.m. onwards

6. **Problems Encountered and**
   Resources Required   :

   1. It is difficult to get availability of high-profile dignitaries and scientists because of the very nature of work they do.
   2. Financially expensive, hence inviting international experts for offline interface is almost impossible.

7. **Notes (Optional)**   :
   Feedback Analysis of the Programme:
   All the stakeholders are highly benefited by the maiden lecture on Science and Spirituality. All students became aware about the Avishkar Lab for conversion of ideas into innovative projects.

   We are very glad to mention that the same lecture later became part of the B.Sc. First year text book 'Empowering Minds' of R. T. M. Nagpur University, Nagpur.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator
CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➢	Name of the Department	:	Zoology
➢	Name of Teacher In-charge	:	Dr. K. M. Paturkar
➢	Session of Implementation	:	2019-20
➢	Name of the Class for which the Best Practice was conducted	:	B.Sc. III/V
➢	Number of students benefitted	:	30

1. Title of the Practice :

Vermicomposting and Verm culturing by using green waste and Nirmalya collection

2. Objectives of the Practice :

- Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean.
- It creates awareness among the students about clean environment and best from waste.
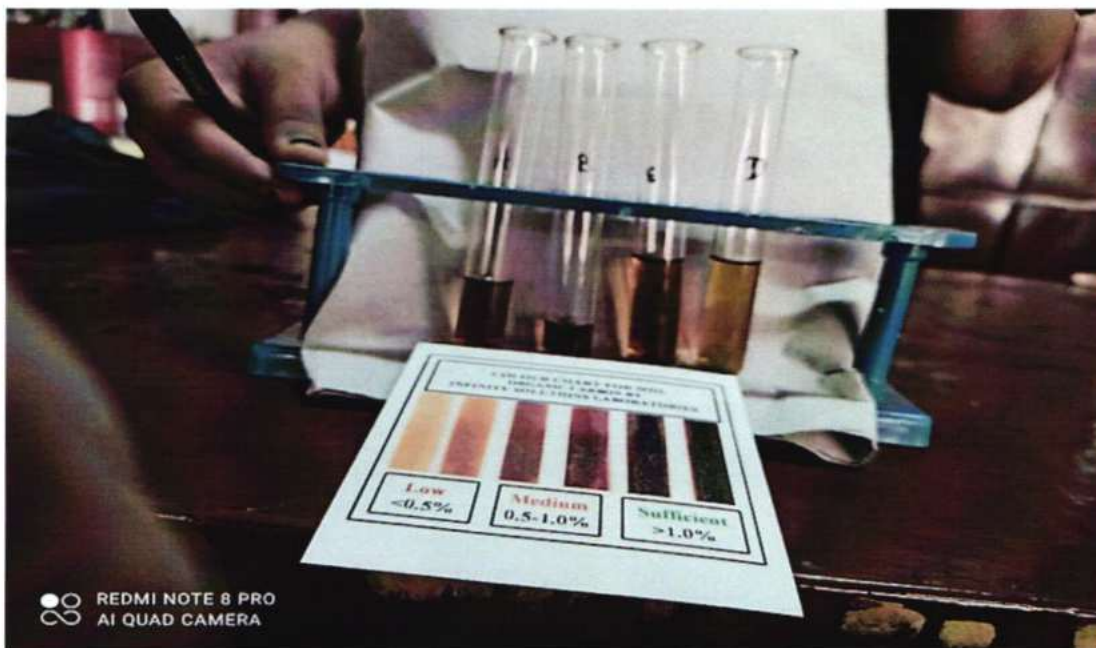- To provide experiential knowledge of subject as it is a part of zoology curriculum.

3. The Context :

Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean. It will also create awareness among the students about clean environment and best from waste. Vermicast (also called worm castings, worm humus or worm manure) is the end-product of the breakdown of organic matter by an earthworm These castings have been shown to contain reduced levels of contaminants and a higher saturation of nutrients than do organic materials before vermicomposting. Vermicompost contains water-soluble nutrients and is an excellent, nutrient-rich organic fertilizer and soil conditioner. Vermi-composting is a part of applied Zoology. To create an awareness among the students about environment Department of Zoology has taken an initiative and started this activity. We use pit method for vermicomposting. We prepared vermicasts from green wastes from college campus.

4. The Practice :

Uniqueness of this activity is that we made this project research oriented Vermicompost generated from variety of flower waste and green waste Analysis was done for important elements for plant growth. found in soil.

5. **Evidence of Success** :

Vermicompost generated from variety of flower waste and green waste. After analysis get the readings of nitrogen phosphorus and potassium and carbon..

6. **Problems Encountered and Resources Nil Required** :

7. **Notes (Optional)** :

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator
CO ORDINATOR
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Dr. Akhilesh V. Peshwe

Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE,
North Ambazari Road, Near Ambazari Lake, Nagpur

NAAC ACCREDITED GRADE 'A' WITH CGPA 3.01 (Third Cycle)

CRITERION-VII

Institutional Values and Best Practices

YEAR-4
2018-19

7.2.1

**Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual during the years 2018-19**

SSR: 2023 FOR NAAC FOURTH CYCLE

DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE, NAGPUR

7.2.1

Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual during the years 2018-19

LIST OF ACTIVITIES 2018-19

Sr. No	Title of the Best Practice	Name of Department or Committee	Name of the In-charge
1.	Maintenance through MCVC (PTCI	Minimum Competency and Vocational Course Department	Mr. Atul Moghe
2.	Blood Donation	National Service Scheme (NSS)	Dr. Pitambar Humane
3.	The Study offloristic biodiversity	National Service Scheme (NSS)	Dr. Pitambar Humane
4.	Tree Plantation	National Service Scheme (NSS)	Dr. Pitambar Humane
5.	Publication of Departmental Magazine, "PEARLS"	Department of Chemistry	Dr, Vaishali P. Meshram
6.	IIT Spoken Tutorial Certificate Course	Department of Computer Science	Mrs.Snehal Narale
7.	Skill development program in collaboration with Department of Microbiology	Department of Computer Science	Mrs. Snehal Narale
8.	Workshop on 'Writing Scientific Research Article/ Paper'.	Department of Computer Science	Mrs. Snehal Narale
9.	Cyber Security Awareness"	Department of Electronics	Prof. Mrs. Varsha Rangari
10.	Poster Presentation Activity	Department of English	Dr. Mrs. Shraddha Deshpande

11.	Internship Programme in Haldiram's Factory Outlet.	Home Science Department	Mrs M M Deshpande & Mrs Pradnya Bagalkote
12.	Internship Programme for 5 day at Wockhardt Hospitals, Ltd.	Home Science Department	Mrs M M Deshpande & Mrs Pradnya Bagalkote
13.	Say "NO" to Plastic	Home Science Department	Mrs. M.M Deshpande, Mrs. Ranjana Kulat, Ms. Megha Dawande &
14.	Vedic Mathematics	Mathematics	Dr. N. P. Gaikwad
15.	Design, Fabrication and Repairing of Physics Laboratory Equipments	Physics	Lt. Dr. Prashant Ambekar
16.	Vermicomposting and Verm culturing by using green waste from college campus	Zoology	Dr. Kirti M. Paturkar

Prof. Pitambar Humane
IQAC Coordinator

Dr. Akhilesh Peshwe
Principal

➤ **Name of the Department** : Maintenance Department
➤ **Name of Teacher In-charge** : Mr. Atul Moghe
➤ **Session of Implementation** : 2018-19
➤ **Name of the Class for which the Best Practice was conducted** : Best practice offers services to all the departments and entire premises of the institution.
➤ **Number of students benefitted** : All the students get benefit of maintenance services

1. **Title of the Practice** : Maintenance through MCVC (PTC)

2. **Objectives of the Practice** :
   - To minimize maintenance cost of the institutions
   - Entrepreneurship Development Opportunities for Students
   - To improve the skills

3. **The Context** :
   Maintenance cost of equipment and gadgets in all the departments was quite much. Labor is always expensive. Reducing this cost was one of the top most priority of the institution hence this practice started long time back. We were required to provide opportunity for students to gain experience and develop their skills so that they go out of the college with confidence.

4. **The Practice** :
   The Maintenance Department of the institution renders its services to all the departments of the institution and attends breakdown in the power supply or electricity related issues. The department attempts to resolve the campus issues innovatively and creatively. The motion sensitive sensors developed by the department are used in the wash areas and toilets. Winding of all the fans is done in the maintenance departments. LED tube lights/bulbs; solar system maintenance

5. **Evidence of Success** :
   One of the best practices of this department is that the department *assembles* brand new computers using branded parts saving at least Rs. 5000/- per assembly of the machine. *80 % machines* of our institution have been assembled by the Maintenance Department.

Maintenance of electrical fixtures, wiring, solar system etc. is done through the department. Department has developed a patent. Department has installed motion sensitive device for toilets and wash areas. Major contribution in saving revenue on maintenance.

6. **Problems Encountered and**
   Resources Required   :
   Less staff for maintenance department. All the issues of maintenance cannot be handled; hence some AMC are always required.

7. **Notes (Optional)**   :
   Honorable Peer Team Members of the 3rd Cycle appreciated the contribution of Maintenance Department.

ABMoghe

(Mr. Atul Moghe)
Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator
CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe

Principal
PRINCIPAL
Dharampeth M. P. Deo Memorial
Science College, Nagpur.

➢ Name of the Department	:	National Service Scheme (NSS)
➢ Name of Teacher In-charge	:	Dr. Pitambar Humane
➢ Session of Implementation	:	2018-19
➢ Name of the Class for which the Best Practice was conducted	:	NSS Volunteer
➢ Number of students benefitted	:	NSS Volunteer

1. **Title of the Practice** : **Blood Donation**

2. **Objectives of the Practice** :

   - Organization of blood donation camp in memory of Late. Vinayakrao Phatak, on 8th August in every year as well as during the NSS Camp in villages.
   - To inculcate the importance and need of blood donation as a social responsibility
   - To take care the supply of blood to every needy person in the society in emergency.
   - Organization of rallies to spread the awareness about the blood donation benefits and its future prospects.

3. **The Context** :

   - Blood and blood components are not generated in the laboratory and hence it must be donated by the individual
   - Many misconceptions among the society which leads to collection of less amount of blood
   - Inability to fulfill the need of blood for different patients by existing blood banks

4. **The Practice** :

   - Organization of blood donation camp in memory of Late Vinayakrao Phatak in the institute, making this practice frequent repetition every year
   - The blood is collected by Hedgewar Blood Bank during the blood donation camp and certificates are given to every donor.
   - Many students after knowing the importance of blood donation, come forward to donate the blood, this helps them to understand the importance of blood donation and social responsibility.
   - Since last many years, this practice made 1000s units of blood were collected during the camp, that definitely helped the society to save the lives.

5. **Evidence of Success** :

   - The list of blood donors and geotag photographs are preserved with NSS Unit of the college.
   - Also, the list of blood donors from the blood donation camp is available with Hedgewar Blood Bank

- The collected blood was used to save the many lives through Hedgewar Blood Bank.

6.   Problems Encountered and Resources
Required   :

- Though there is urgent need of blood to the society in every medical emergency, there is crunch of blood in blood banks, because of a smaller number of blood donors.
- Misconceptions about the blood donation and its importance is one of the most important reasons responsible for availability of a smaller number of blood donors
- Spreading awareness among masses is very much important to overcome this problem in future.

7.   Notes (Optional)   :

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Name & Signature of In-Charge of the Practice

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➤	Name of the Department	:	National Service Scheme (NSS)
➤	Name of Teacher In-charge	:	Dr. Pitambar Humane
➤	Session of Implementation	:	2018-19
➤	Name of the Class for which the		B. Sc. Sem.-III
	Best Practice was conducted	:	
➤	Number of students benefitted	:	B. Sc. Sem.-III

1. **Title of the Practice** : **The Study of floristic biodiversity**

2. **Objectives of the Practice** :

- To study the angiosperms around us and to know the local flora this activity is practiced in nearby college campus as well as in the village premises where NSS Camps are organized.
- To make the students aware about the research activities in angiosperm taxonomy.
- To prepare the students for conservation of environment for sustainable development
- To make the student familiar with composition of the local flora and its importance in environment.

3. **The Context** :

- As a student and teacher of Botany, field-based study was found difficult to the students, but is practical based and very much important for the subject students. Motivation of the students for field study as well as teaching them botanical names, plant identification is a challenging job.
- Also, use of flora in field is not possible hence, its use in identification were taught in laboratory. This practice is utmost necessary for the Botany students and hence all the problems were overcome for implementation of this activity.

4. **The Practice** :

- Such student centric projects like field visits to explore Angiosperm flora of different places is uncommon in UG classes, hence students entering in PG after involvement in such activities, are more knowledgeable and well-versed about the basic things in the subject.
- Also, the research attitude is developed among the students with participation in such activities.

5. **Evidence of Success** :

- Data regarding the flora studied in students' centric projects were collected and stored in the department. Many photographs were also taken during the survey, which help the upcoming students to guide them in identification and actual pictures of the plants.

- This data will be useful in compilation of this work in the form of field guide for the students in near future. Such type of practices definitely assists the students in enhancing their interest in the subject as well as to inculcate research attitude among them. The collected blood was used to save the many lives through Hedgewar Blood Bank.

6. **Problems Encountered and Resources**
    Required   :
    - Management of time in academic time table for field visit is an important thing in implementation of this activity.
    - Identification of interested students for field study is necessary during this activity. Accordingly, the method was followed and students were taken for fiend visits in nearby area of the institution as well as during NSS Camp.

7. **Notes (Optional)**   :
    - Students are taken into the field in college campus, nearby college i.e., Ambazari lake premises and even the place where NSS Camps are organized. The HOD of Botany provides the scientific names of the plants to the students found common the areas.
    - The information about the ethnobotanical uses is given while studying in the field. The listing of the plants is made along with their scientific information and ethnobotanical data.

Name & Signature of In-Charge of the Practice

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➢ Name of the Department	:	National Service Scheme (NSS)
➢ Name of Teacher In-charge	:	Dr. Pitambar Humane
➢ Session of Implementation	:	2018-19
➢ Name of the Class for which the Best Practice was conducted	:	NSS Volunteers
➢ Number of students benefitted	:	NSS Volunteers

1. **Title of the Practice** : **Tree Plantation**

2. **Objectives of the Practice** :

- To increase green cover by plantation in college campus as well as in the places of NSS Camps.
- To increase the awareness and importance of tree plantation.
- To spread the message of save trees, save environment, and save earth.

3. **The Context** :

- Tree plantation is a need of hour to save the environment so that it can help to avoid global warming.
- Plants are the producers of universe and even shelter houses of many birds and other organisms.
- Tree plantation help to increase rainfall and reduce soil erosion.

4. **The Practice** :

- Tree plantation is conducted every year on 3rd August, on occasion of foundation day of Dharampeth Education Society, a parent society of the institute.
- On the day of activity, the society members, secretory, presidents, etc. remain present for inauguration of the activity.
- The NSS volunteers and teaching and non-teaching staff members of the college participate in the activity of plantation.

5. **Evidence of Success** :

- The geotag photographs are preserved with NSS Unit of the college.
- Many trees planted during tree plantation program are there on the campus.
- Trees are also planted in the villages and schools where the NSS Camp was organized.

6. **Problems Encountered and Resources Required** :

- The conservation of environment is only possible due to tree plantation and tree plantation is not practiced everywhere without reason though there is urgent need.

- The reduced number of tress day by day as well as decrease in forest cover there is need to involve every citizen to practice tree plantation program.
- NSS Volunteers are involved in planting tree species on college campus as well as in villages where NSS Camp organized

7.   **Notes (Optional)**   :

- Tree plantation is most important activity to conserve environment and mother earth to save the lives of all animals. The sustainable development is only possible by tree plantation for future generation. In the program many trees are planted on college campus as well as in villages. The activity contributes in increase in the tree cover of mother earth. This will help to provide oxygen, food and shelter for birds and other animals, shade to human beings, etc.

Name & Signature of In-Charge of the Practice

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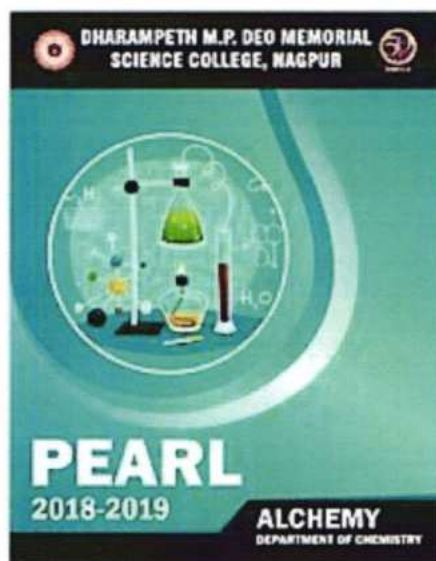**Principal**

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- **Name of the Department** : Chemistry
- **Name of Teacher In-charge** : Dr. Vaishali P. Meshram
- **Session of Implementation** : 2018-19
- **Name of the Class for which the Best Practice was conducted :** All Semesters
- **Number of students benefitted** : All chemistry Students

1. **Title of the Practice** :

   Publication of Departmental Magazine, "PEARLS"

2. **Objectives of the Practice** :

   - Spread awareness about how to write scientific articles, avoid plagiarism during the publication of any scientific articles, copy right rules, practical thinking, etc.
   - To get the platform to publish their interesting topics.

3. **The Context** :

   The subject related and other thoughts are always running in student's mind. Sometime students face difficulties in how and what to write in scientific articles what type of matter contents of articles and topic of articles so our department decide to do the practice of writing of articles with their own interest and decide theme of articles which are related with chemistry topic or syllabus also

4. **The Practice** :

   The students opt for chemistry as one of the subjects are notified to send their ideas/ write-ups and matter to be published for the PEARLS magazine. After critically look, selected articles are edited and then a magazine is published on college level under the Alchemy society of the department.

5. **Evidence of Success** :

   Cover page theme of magazine, Photographs of activities, published magazine

6. **Problems Encountered and Resources Required**

   :

   Students not referred Books properly so they have less matter and do not understand how to handle the running matter so they required proper guidance and updating the knowledge while writing articles.

7. **Notes (Optional)** : NA

DHARAMPETH M.P. DEO MEMORIAL
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PEARL
2018-2019

ALCHEMY
DEPARTMENT OF CHEMISTRY

DR. Vaishali P. Meshram
Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

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➤	**Name of the Department**	:	**Computer Science**
➤	**Name of Teacher In-charge**	:	**Mrs.Snehal Narale**
➤	**Session of Implementation**	:	**2018-19**
➤	**Name of the Class for which the Best Practice was conducted :**		**B. Sc. II & III**
➤	**Number of students benefitted**	:	**62**

1.   Title of the Practice   :   **IIT Spoken Tutorial Certificate Course**

2.   Objectives of the Practice   :

In the world of digitization, the implementation of ICT in higher education is the need and demand of this era. The Spoken Tutorial project take an   initiative of the 'Talk to a Teacher' activity of the National Mission on Education through Information and Communication Technology (ICT), launched by the Ministry of Human Resources and Development, Government of India. Demand and scope for such professionally trend graduates are visible in the applied fields of almost all basic and core disciplines and faculty in the changing global scenario and are likely to increase in the future.

3.   The Context   :

At the preliminary level, college introduces the courses for the students of computer science. At the initial level students were not aware about the courses offered by IIT Spoken and training program conducted by the College. Due to unawareness they were not register themselves for the FOSS courses like c and cpp, libreoffice suite [base] etc. To make convince the students for their active participation in the training and certification of IIT spoken is the biggest challenge while designing and framing of these courses at the initial level. Apart from the regular syllabus, providing some value addition courses to the students is also huge task as students are busy in their regular academics and extra circular activities.

4.   The Practice   :

It is envisaged that professionally qualified graduates with a sound knowledge of their core discipline and expertise in a concerned skill will have openings in service, industry and self-employment sectors. Spoken Tutorial is a magical Audio Video teaching tool promoting ICT enabled learning. Spoken Tutorials train in simple steps moving from

simple to complex levels and give practical training of the theoretical concepts. As a result students fast track their knowledge and cope better with the course. The language used is simple and the tutorials ensure that ample instructions and practice is provided to guarantee self-learning.

The method is distance learning and it is unique as students learn by their own selves (SELF Learning) and individually. To get more detail knowledge about the FOSS training will be provided to the students in the lab Hours. The college runs certificate course of IIT spoken tutorial in which trainer faculty train the students using various methods like power point, audio and video tools for the specific course for which he/she registered.

Though computer based, the learning and practice is completely offline once the courses are downloaded into the systems faculty trainer provides the study material to the students and then students listen using earphones, pause, rewind, fast forward as per their progress. This is unique method of teaching in which students learn the different courses from their syllabus as well as advance level also through an interactive manner using simulation which understands hands on the practical application of the theoretical concepts. Self Training can improves students IT/programming/simulation skills as well improves their employment potential. GOI had taken an initiative to launch this project IIT spoken tutorial. under IIT Spoken Tutorial project the college was introduced the certificate course in the year, 2017-2018.

At the beginning of this certificate course only one course (C and CPP) was introduced for computer science students only. The faculty takes feedback from the students every year on the courses run by the college.as per the need of the market as well as demand of the students some of the courses were newly introduced for them like Libreoffice suite [base], Linux and java. Training faculty give some additional exercises to the students based on their certificate courses which helps them to get more detail knowledge about the subject.

5.   **Evidence of Success**   :
   - The list of students appeared and passed for the online examination of IIT spoken Tutorial Certificate course keep in the department of computer science.
   - Some of the students get benefited from the certificate which they received after clearing the exam. Company people note this certificate at the time of selection for their company interview during the job process.
   - Students of computer science get enhance their subject knowledge with these

courses.

- All the details regarding the practice are available on college website
https://www.dharampethscience.com/iit-spoken-tutorial-course/

6. **Problems Encountered and Resources**
    Required   :

    - At first time it was quite difficult for the faculty to make convince to the students about their enrollment for the various courses of the IIT spoken courses offer by the college. Students were unaware about the unmapped courses offered by IIT.
    - Student's personal counseling helps the faculty to make them comfortable in the courses in which they were enrolled.
    - It was very difficult for the faculties to handle the problems of the students during their online examination process as they were not familiar with the platform.
    - Due to less no of computers, some of the students had faced the difficulty during their training program. Hence strengthen computer separate lab with internet connection required for the successful execution of these courses at our college center.

7. **Notes (Optional)**   :

    Conduction of this activity every year motivates the students to participate in more number for various courses of IIT Spoken offer by College as for those who had not participated or enrolled for the courses before. The Certificates which they got help them to placed in good IT Company.

Name & Signature of In-Charge of the Practice

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Pranita Chavan (65)1ˢᵗ Topper: C

Shubham Admane (55) 3rd Topper: CPP

Jogendra Suryawanshi (55) 3rd Topper: CPP

Deepshikha Bora(65.6) 1ˢᵗ Topper: Linux 2ⁿᵈ Topper : CPP (57.5)

Vikas Mandal (55) 3rd Topper: C

Ansul Singh (60) 2ⁿᵈ Topper: C

Shweta Naidu (54.4)

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> **Name of the Department** : **Computer Science**
> **Name of Teacher In-charge** : **Mrs. Snehal Narale**
> **Session of Implementation** : **2018-19**
> **Name of the Class for which the** **B. Sc. I & II**
> **Best Practice was conducted** :
> **Number of students benefitted** : **08**

1. **Title of the Practice** :

   Skill development program in collaboration with Department of Microbiology

2. **Objectives of the Practice** :

   To develop basic computer related skills in students so that they can use ICT tools in their daily academic life for processing their seminars, assignments and Practical journals.

3. **The Context** :

   In traditional schooling and at junior level very few students find opportunity to acquire skill in handling computers and regularly using it for academic purpose to prepare their worksheets , assignments and record books and hence are not trained enough to handle computes for using MS-word, MS-excel & PowerPoint. In the present age, technology is everywhere, even in the classroom. The modern classroom boasts of audio-visual teaching methods. This has made learning interesting for students. In this technology-oriented world, it is needless to say that the importance of computers has also increased a lot. The students need to learn computers as it helps to improve their work. He most basic jobs involve computers in the modern business world. To help students prepare for a wide variety of possible careers and joining classes based on computer education, teaching them how to use computers is very important. The basic knowledge helps them to join advanced courses based on the computer in the future

4. **The Practice** :

   Keeping above context in the department of Microbiology in collaboration with department of computer science conducted the one week certificate course on 'Fundamentals of Computers' from 6th August 2018 to11th August 2018. The participation and enrolment of the students in this course was voluntary. In this course around 10 students were enrolled and trained to acquire some fundamental skills in computers as follow-

- ❖ Working of Computers

- ❖ Categories of Computers

- ❖ Introduction to Input device, Output device & CPU, hardware, software, memory management etc.

- ❖ Ms-word

The students were given access to computers to acquire hands on training. Also students were guided for using new tools and methods of communication. This helps them to have online communication with their teachers. They can also check their lesson plans or grades online. The students can send assignments to their teachers from any place.

After the certificate course students were trained to make their Microbiology record books using Ms- Word.

5. Evidence of Success :

Students developed confidence in handling computers for processing their daily work like seminars, practical journals, assignments etc. Self-processing of Microbiology journals by the students was the huge success of this practice.
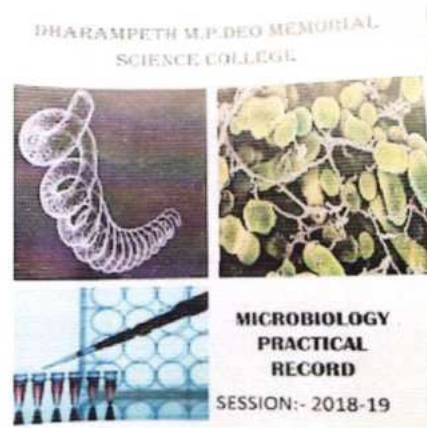
6. Problems Encountered and Resources
Required :

Students need motivation to participate in such type Workshop. Difficulty is faced in setting time table for one week workshop due to time slots of different regular subject's theory and practical classes. Also difficulty is faced in handling slow learners as some students take much of the time to acquiring computer skills. To conduct such workshops different resources like additional manpower who can individually guide students and train them is needed as well as computers and internet facility is required.

7. Notes (Optional) :

At the end of this workshop students will be able to apply their knowledge in their daily activities of the college. It also helps them to get better job in the future also.

DHARAMPETH M.P. DEO MEMORIAL SCIENCE COLLEGE, NAGPUR

MICROBIOLOGY PRACTICAL RECORD

B.Sc 2nd year Semester III

Name & Signature of In-Charge of the Practice

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> **Name of the Department** : **Computer Science**
> **Name of Teacher In-charge** : **Mrs.Snehal Narale**
> **Session of Implementation** : **2018-19**
> **Name of the Class for which the** **B. Sc. III**
> **Best Practice was conducted :**
> **Number of students benefitted** : **21**

1. **Title of the Practice** : **Workshop on "Writing Scientific Research Article/ Paper".**

2. **Objectives of the Practice** :

Research in innovation is the new era for the students. Conduction of such type of the workshop helps the students to create and develop their interest and idea in the field of Research. Students also get detail knowledge of the topic of the research and its future scope. They also understand the whole process of writing article or paper on their topic of interest in the computer science or recent trends and technology used in this particular subject. It would help the students in the selection of topic of interest as well as writing a Research paper or article

3. **The Context** :

At the initial level the response of the students were very poor as if they were not aware about the research area and its working pattern for UG Students. It is very difficult for the faculty to convince them to attend such types of workshops. While conducting such type of the workshop specially which are base on the research in an online mode faculty has noticed as a challenges:

- Lack Of knowledge in the field of science and technology
- Require more Motivation in Students
- Lack of knowledge in the field of research

While considering all the challenges that may have to face during the conduction of the problem the workshop was designed only for the interested students those who really wants to do research. Faculty has interacts with the students during her regular classes and ask them whether they are interested or not

4. **The Practice** :

Writing scientific article or research paper is a basic skill that must be learned by the students only using repetitive practice of reading, writing and revising. This workshop is intended to impart researchers/students with basic skills in writing and publishing a scientific paper in a peer reviewed journal. The department of computer science takes an

initiative to train the students in the field of research by conducting such type of workshops to promote the students to work in the research area. UG students are unaware about this particular area of research as compare to the students of post graduation. To break this constraints the department conducted the workshop based on the research paper and the compete process of writing research paper. This would be a unique activity for the students of computer science organized by the department from last four years continuously. In higher education of India researcher plays a vital role to build the nation more ahead and grow in the highest level.

In this workshop the list of the contents will be covered like

- What is research? What it its need?
- What is the aim and objectives of conducting this workshop based on the research paper or article?
- What would be expected outcome/results from the workshop?
- Difference between research paper and article
- Different steps that must be follow by the students while writing scientific article /paper.
- Detailing of writing scientific research paper and do's and don'ts of it. Some of the points have been included as given below section wise.
- **Formatting Section**
  ❖ Use active voice
  ❖ Follow the style guide for publication
  ❖ Organize the paper in the proper order
- **Writing the Sections must include How to**
  ❖ Start with the Materials and Methods section.
  ❖ Describe the results in the Results section.
  ❖ Interpret your data in the Discussion section.
  ❖ Review the literature in the Introduction
  ❖ Summarize the paper in the Abstract.
  ❖ Write a descriptive Title.
- **Making the Figures and Tables**
  ❖ Write figure legends that describe the data
- **Citing Your Sources Properly.**

The workshop will also the help the student participants to understand how to outline a scientific article or paper, become familiar to construct an argument in a scientific manuscript, do effective literature search and review, manage references using different software, understand authorship, plagiarism and ethics in publication.

5. **Evidence of Success**   :

At the end of the workshop student participants would understand the complete process of writing scientific research article /paper and how to publish the paper or article in the renowned journal. If participants have sufficient data to begin writing a paper, they could work on the draft during group work. Some of the student participants show their interest to write an article or research paper. They start reading and searching the topic of their interest to write an article at the initial level. At the initial level they just tried to copy the concept from the net and reframe it. But after this seminar some of them really understand what are research and its nothing to copy the data but using the basic idea we need to add our innovations into it. Some of the students submit their article/paper to the faculty and some are working on it .

Students list is available in the department.

6. **Problems Encountered and Resources Required** :

When this workshop was conducted first time it was quite difficult for the faculty (Mrs. Snehal Narale) to make convince to the students how this would help them in their future. Time to time motivation is required for the students and the practice of arranging such types of workshop now it is quite easy to make the registration for the students. Due to time constraint the workshop is organized for one day only. But the department has planned to invite some guests to give more additional information about the research area and what is the scope of this for UG students in their life.

7. **Notes (Optional)** :
If this practice is undertaken by the every year it would help to increase number researcher those who have really interest to do research and create job opportunities in research field.

Name & Signature of In-Charge of the Practice

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- **Name of the Department** : **Electronics Department**
- **Name of Teacher In-charge** : **Prof. Mrs. Varsha Rangari**
- **Session of Implementation** : **2018-19**
- **Name of the Class for which the** **Interested College Students**
  Best Practice was conducted :
- **Number of students benefitted** : **10 School students, total students 3797.**

1. **Title of the Practice** : *"Cyber Security Awareness"*

2. **Objectives of the Practice** :
   - To make the youth alert while working online.
   - To prevent falling prey to cyber criminals
   - To stop youth from getting indulged in cyber-crimes or similar activities.
   - To select volunteers and train them to give presentations in schools.
   - To provide them a stipend and intern certificate on successful completion of tasks.

3. **The Context** :

This activity started in the year 2017 in collaboration with Quick Heal Foundation, Pune. The mission of this activity is to keep the kids safe online. As kids grow up in this digital age, keeping up the latest trends and technology is part of everyday life. Parents, on the other hand, are oftentimes less savvy than their kids when it comes to cyber behaviour. And due to lack of cyber awareness many crimes are happening online and is bound to increase drastically in near future. Having sensed the potential online danger, MoU was signed with Quick Heal Foundation.

4. **The Practice** :

In the beginning of every academic year, MoU with Quick Heal Foundation, Pune was done. Interested college students were selected. They were trained by Quick Heal Foundation trainers. These students go to different colleges, take permission from the principal of that college and schedule their presentation. Before and after feedback from school students was taken after the presentation.   Also remarks from the principal were taken. At the end of this activity stipend and intern certificate is given to volunteers.

5. **Evidence of Success** :

Year	Total No. of Volunteers	No. of School targeted	Total No. of Students Beneficiaries	Total Amount earn by the Volunteers
2018-19	13	32	14164	85,200/-

School students learn many things like how to be secure when online. From this activity student volunteers not only earn money or certificates but also enhance their personality and confidence level.

6. **Problems Encountered and Resources**
   Required :

In the first year, no school principals were allowing the student Volunteers for presentation. Then they were trained how to convince them. After that they were getting permission from the school which boosted up their confidence level. This is reflected in the number of schools and number of students targeted.

7. **Notes (Optional)** :

Name & Signature of In-Charge of the Practice

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➢ **Name of the Department** : English
➢ **Name of Teacher In-charge** : Dr. Mrs. Shraddha Deshpande
➢ **Session of Implementation** : 2018-2019
➢ **Name of the Class for which the** B.Sc. -I
  Best Practice was conducted :
➢ **Number of students benefitted** : 217

1. **Title of the Practice** : **Poster Presentation Activity**

2. **Objectives of the Practice** :

A poster is a very useful means of making an idea into a creative and colourful art form and also stimulate and develop creativity within students. Therefore, to educate students in academic skill base format through drawing and painting an activity of poster making based on the prosed prescribe in the syllabus was conducted. It was aimed at developing the creative insights of the students and teach them to covert a text into a creative art form. By making an outline of the text students could combine their thoughts and learning on a poster. The objective was to open a forum of discussion for the students which eventually they submit as a group activity.

3. **The Context** :

In multi ability classroom some students may have trouble making the transition to the more independent learning required and some may accomplish the task. Indian writing in English seems to be appropriate choice for designing an independent learning activity as its colloquial language and storytelling techniques are easily absorbed by the learners. The learners at the first instance can relate to the subject matter because of its relativity to their day-to-day life. Following the above considerations, the text chosen for activity was "Freedom at Midnight" by Larry Collins and Dominique Lapierre on the backdrop of India – Pakistan Partition. An additional objective of choosing the aforesaid text was its representation in Film Media which is a popular media among today's youth. Gadar: Ek Prem Katha made in 2001 is an Indian period action drama film. The setting, characters and plot of the movie and the text display at most similarities, there are certain variations too.

4. **The Practice** :

At the beginning level of any independent learning activity learners may find it difficult to understand the process of self- management. It is the lack of knowledge about the subject matter that may lead them directionless but the role of a teacher as a facilitator proves beneficial. Nevertheless, it becomes self-learning not self-directed. Since there are many chances of students getting distracted from the core activity due to excitement and

pleasure of independent learning, the teacher should consistently remind them the very objective of the task to be accomplished. For example, the above study was about the comparative analysis of the text and the movie against the setting of partition of India. It was observed that the students tend to divert their study towards partition of India rather than the comparative study. At most care was taken through methodical supervision that the poster making exercise should focus on the expected objective only. Hence one can deduce that though creative learning gives a freedom of choice to the learners, it should only be within the limits of the given project.

5. **Evidence of Success** :

Feedback Link:

https://docs.google.com/spreadsheets/d/1qPx2yERMMF7QpCiqQeGVj2nfjN5mBlh0pKuJFoWMO6M/edit?usp=sharing

6. **Problems Encountered and**
Resources Required :

Handling big number of students is a difficult task, as answering the queries of each one of them may not be possible every time. This is time when we as teachers should provide them learning platforms that will give them self-learning and self-evaluating opportunities. Indeed, the role of a teacher is not totally absent in this approach, on the other hand, it is of the facilitator who catalyses the process of learning in a learner friendly way.

7. **Notes (Optional)** :

Feedback of 175 students was gathered on the poster making activity. 45.3% were of the opinion that the text was easy to understand as it was Indian in context. Whereas appropriately 29.7% of them understood it because the language and story were simple. 67.6% of them agreed that process of comparing the text to the movie was interesting. Also, the activity was knowledgeable 26% affirmed. 46.8% of them viewed the activity that enhanced the concept of self-learning. However, 32.9%% of them found out that they learnt the process of poster making. 65.7% % of learners consented on conducting such activities once in a month and 34.3% remaining voted for once in a week.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

➢ **Name of the Department** : Home Science Department

➢ **Name of Teacher In-charge** : Mrs M M Deshpande & Mrs Pradnya Bagalkote

➢ **Session of Implementation** : 2018-19

➢ **Name of the Class for which the**   B.H.Sc Final Year (semester 6 passed out batch)
   Best Practice was conducted :

➢ **Number of students benefitted** :

1. **Title of the Practice** : **Internship Programme in Haldiram's Factory Outlet.**

2. **Objectives of the Practice** :

Apprenticeship for Skills required to work in the field chosen. Students get concept of food safety, HACCP, FACCI, FAO governing laws. Concept of packaging, concept of Storage, concept of processes like saponification, fat emulsification, also Qualitative analysis of food items.

3. **The Context** :

Practical application of the Knowledge gained can help the Student learn & gain understanding about the expected Skill necessary for & need to be updated in the Industry.

4. **The Practice** :

Students are sent to arenas like Hospitals, food Industry . Some few are selected on basis of Interview. They learn and work as internee & learn and profit from the experience.

5. **Evidence of Success** :

Students receive Certificates. They also write report & submit to college as also to the HR Staff of the Industry.

6. **Problems Encountered and**   Nil
   Resources Required :

7. **Notes (Optional)** :

The above batch of Students were selected on the outstanding Performance in the Examinations Conducted by the University. Few Students got the Practical training under

a recognized Dietitian. Following are the names of Students who have taken the internship at Industry & Hospital.

Devina Bhatt

Roma Meghwani

Bhumika Shende

Mehvish Nida

Samiksha Pillare

Shreya Hirenkhedkar.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator

CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe

Principal

Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

- ➤ **Name of the Department** : Home Science Department
- ➤ **Name of Teacher In-charge** : Mrs M M Deshpande & Mrs Pradnya Bagalkote
- ➤ **Session of Implementation** : 2018-19
- ➤ **Name of the Class for which the Best Practice was conducted :** B.H.Sc Final Year
- ➤ **Number of students benefitted** : 4
1. **Title of the Practice** : **Internship Programme for 5 day at Wockhardt Hospitals,Ltd**

2. **Objectives of the Practice** :

Apprenticeship for Skills required to work in the field chosen.

3. **The Context** :

Practical application of the Knowledge gained can help the Student learn & gain understanding about the expected Skill necessary for & need to be updated.

4. **The Practice** :

Students are sent to arenas like Hospitals, food Industry . Some few are selected on basis of Interview. They learn and work as internee & learn and profit from the experience.

5. **Evidence of Success** :

Students learn the importance of nutritional Counselling On Completion of Internship programme report is written by the students. Students learn the Doctor –Patient interaction.

6. **Problems Encountered and Resources Required** : Nil

7. **Notes (Optional)** :

Principal Dr Akhilesh Peshwe is the Guiding force for helping the students for practical experience.
Following students participated in the internship programme-
Madhura Temburnikar
Samruddhi Patwardhan
Heena Lahabar
Shivangi

Name & Signature of In-Charge of the
Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

➤	**Name of the Department**	:	Home Science
➤	**Name of Teacher In-charge**	:	Mrs. M.M Deshpande, Mrs. Ranjana Kulat, Ms. Megha Dawande & Mrs. Kalyani Hingnikar
➤	**Session of Implementation**	:	2018-19
➤	**Name of the Class for which the Best Practice was conducted**	:	B.Sc.H.Sc. Sem-III
➤	**Number of students benefitted**	:	25
1.	**Title of the Practice**	:	Say "NO" to Plastic

2. **Objectives of the Practice** :

- To make the Students aware of use of plastic & Say a big 'NO " to use of plastic
- Contribute to the then Government Policy "Ban on Plastic Use"

3. **The Context** :

Aligned with the Government's Project on Ban of Plastic use, the activity was conducted to spread the Concept & create awareness.

4. **The Practice** :

An Activity was initiated for Students of B. Sc. H. Sc. with the purpose of enabling them to make paper bag, thereby helping the minimal use of Plastics & support the cause.

5. **Evidence of Success** :

Students made & stitched the Paper & Hand bags with an expertise, resource person & Faculty of Home Science Miss Megha Dawande &Mrs Ranjana Kulat, Kalyani Hingnikar. Effort towards environmental Consciousness was achieved by this. Students immensely enjoyed this activity.

6. **Problems Encountered and Resources Required** :

Students were given the material and also few students collected the material from their house. Not much a planning was needed for making of bags. The sewing machines in the Department were used to some cloth hand make bags

7. **Notes (Optional)** :

Neshpande

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator

Dr. Akhilesh V. Peshwe

Principal

- ➤ **Name of the Department** : **Mathematics**
- ➤ **Name of Teacher In-charge** : **Dr. N. P. Gaikwad**
- ➤ **Session of Implementation** : **2018-19**
- ➤ **Name of the Class for which the** **Interested College Students**
  Best Practice was conducted :
- ➤ **Number of students benefitted** : **42**
1. **Title of the Practice** : *Vedic Mathematics*

2. **Objectives of the Practice** :

- To increases calculation speed and accuracy;
- To improve academic performance
- To sharpens your mind, increases mental agility and intelligence;
- To increases visualization and concentration in children;
- To become a mental calculator.

3. **The Context** :

Vedic Mathematics is a collection of Techniques/Sutras to solve mathematical arithmetic in easy and faster way. It consists of 16 Sutras (Formulae) and 13 sub-sutras (Sub Formulae) which can be used for problems involved in arithmetic, algebra, geometry, calculus, conics.

Globally we are facing a crisis in Math education. Math phobia is prevalent globally among students, teacher's and even parents. There is an acute scarcity of math teachers around the world so much so that no one wants to become a Math teacher anymore. So the objective is to make math fun-filled and arise interest which in turn will increase the speed and accuracy in various competitive and placement examinations.

4. **The Practice** :

In the beginning of academic year, we are organising workshop on vedic mathematics for the students. After attending the workshop, an interest developed among the students. The purpose to study Vedic Mathematics is to make mathematics easy and interesting. After attending the course, students become conceptually strong in Mathematics and able to solve complex mathematical problems faster and easier.

5. **Evidence of Success** :

From this activity, students learn many things and also enhance their confidence level. Following are the some Vedic Mathematics tricks:

- Multiplication Techniques/Shortcuts Using Vedic Mathematics
- Calculating Squares in Vedic Mathematics

- Calculating Squares Roots in Vedic Mathematics
- Cube Roots in Vedic Maths
- Multiply a Number By 5.
- Multiply Any Two-digit Number By 11.

6. **Problems Encountered and**
   Resources Required   :

   Western mathematics is more popular and versatile in the contemporary world. Vedic Mathematics is great but most of the text available in Sanskrit and other old literature. It requires more resources, research, and time to come in the mainstream subject.

7. **Notes (Optional)**   :

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

➤ **Name of the Department** : **Physics**
➤ **Name of Teacher In-charge** : **Lt. Dr. Prashant Ambekar**
➤ **Session of Implementation** : **2018-19**
➤ **Name of the Class for which the** **B.Sc. I, II, III**
   Best Practice was conducted :
➤ **Number of students benefitted** : **19**
1. **Title of the Practice** :
   Design, Fabrication and Repairing of Physics Laboratory Equipments

2. **Objectives of the Practice** :
   - To provide sufficient background and theoretical knowledge to the participants regarding the regulated power supplies and other important knowhow.

   - To inform how to do a better contact using soldering.

   - To provide information regarding high tension lines, earthing & common ground.

   - To demonstrate actual design and fabrication of a simple power supply and its regulation.

   - To develop low cost and easy to handle AC and regulated DC power supplies using IC LM317.

   - To repair the faulty power supplies existing in the Physics Laboratory.

   - To develop/prepare cost effective CRO input wire sets using BNC pins and crocodile clips with an edge over its quality of wires and soldering.

   - To provide the participants skill-based hands on training to develop new equipment.

3. **The Context** :
   The Department of Physics has organised the said workshop designed and conducted by Lt. Dr. P. W. Ambekar for the second time. The main motto of the workshop is to motivate students towards research and innovations apart from the regular study. The selection of the students for the workshop is made on first come first serve basis besides keeping main criteria of clear passing in earlier examination. Nominal fees of Rs 100/- per students' participation is applied to every student. The timings for the workshop were kept as per the wish of the students and their full-time availability viz. 11.00 am to 5.00 pm with a snack break at 1.30-200 pm.

4. **The Practice** :
   The workshop provided the hands-on training to the participants by covering the

theoretical sessions on following manner:

Day 01:
An introduction to AC and DC systems is demonstrated at the beginning. Thereafter basic electrical/ electronic components verification and related applications were taught. Training related to parameters and properties of the electric quantities were explained. AC mains and power supplies and DC power supplies were explained and theory related to the same was taught as per the understanding of the students.

Practical:
To develop an interest and confidence among students the faulty power supplies were opened and tried to develop a logical fault findings.

Day 02:
The power supplies were checked and as per the needs they were opened. The circuits were detached and practice of learning it by drawing their circuit diagrams. Checking of components such as diode, capacitor, transformer, led/ neon lamps and switches such as toggle switch and main switches etc were taught and the use of multimeter and soldering gun were demonstrated.

Day 03:
All the participants were divided in to 5 groups consisting of two students in each group. Every pair were provided with individual soldering assembly, multimeter, PCBs and basic component set including connecting wires and sleeves.

Designing the regulated power supply and theory related theory were demonstrated and asked all the participants to make their own design, and fabricate the same with all possible precautions those were taught. Finding the terminals of components and Designing of layout of PCB board, Drilling and cutting were conducted.

Day 04:
The students were asked to develop their own bridge rectifier and filter circuits with IC regulation. Almost all the pairs were ready with the designed assembly. These assemblies were then tested. The tested assemblies were then equipped with regulation using potentiometer wirings to the regulated IC.

Day 05:
Most of the participants designed and developed their assemblies as per the instructions. Many of them were busy with repairing the old non-functioning power supplies and they repaired them with all possible methodologies. The designed and repaired assemblies were then checked for final use. Measurement of output ac and DC voltages with regulation and important Safety precautions while connections were checked. Many participants developed new instruments/kits for multi-fold experimental practice with minimal complications.

Day 06:
On the last day of the work shop, remaining work completion and finishing of the products were conducted. The workshop is concluded with a small Valedictory Function in presence of The Principal of the Institute, Dr. Akhilesh Peshwe and Head of the Department, Dr. Mrs. Seema Ubale madam. Every individual participant was asked to give feedback of the

workshop online and ask to say few words during the valedictory function.
After the completion of the workshop every student displayed their products to the entire college staff and students in an exhibition cum display of fabricated and repaired devices.

5. **Evidence of Success**   :

    1. Students were very happy to learn practical skills.
    2. Their curiosity and confidence were raised and then a practical to theory matching approach was developed with apt understanding of theory.
    3. Due to a team-based learning, group discussion and problem-solving ability was developed among them.
    4. The students have provided very positive feedback on the said activity/ practice.

6. **Problems Encountered and**
    Resources Required   :

    The limitation of tools was the basic problem associated with this activity but the students have sorted out by their discussion and problem solving skills.

7. **Notes (Optional)**   :

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal

Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➢	**Name of the Department**	:	Zoology
➢	**Name of Teacher In-charge**	:	Dr. Kirti M. Paturkar
➢	**Session of Implementation**	:	2018-19
➢	**Name of the Class for which the**		B.Sc. SEM III
	Best Practice was conducted :		
➢	**Number of students benefitted**	:	26

1. **Title of the Practice** :

Vermicomposting and Verm culturing by using green waste from college campus.

2. **Objectives of the Practice** :

- Vermi-composting activity is of immense importance in solid waste management which is   beneficial for society and also keep college campus clean.

- It creates awareness among the students about clean environment and best from waste.

- To provide experiential knowledge of subject as it is a part of zoology curriculum.

3. **The Context** :

Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean. It will also create awareness among the students about clean environment and best from waste. Vermicast (also called worm castings, worm humus or worm manure) is the end-product of the breakdown of organic matter by an earthworm These castings have been shown to contain reduced levels of contaminants and a higher saturation of nutrients than do organic materials before vermicomposting. Vermicompost contains water-soluble nutrients and is an excellent, nutrient-rich organic fertilizer and soil conditioner. Vermi-composting is a part of applied Zoology. To create an awareness among the students about environment Department of Zoology has taken an initiative and started this activity. We use pit method for vermicomposting. We prepared vermicasts from green wastes from college campus.

4. **The Practice** :

Uniqueness of this activity is that we made this project research oriented through which variety of vermicasts generated from different type wastes. Analysis   of carbon and other important element present in different type of casts .

5.   **Evidence of Success**   :
     270 kg vermicompost formed Variety of vermicast pattern were studied and collected by the students

6.   **Problems Encountered and Resources**   **Nil**
     Required   :

7.   **Notes (Optional)**   :
     Students identify diversity in casts of earthworm present in the college campus area and botanical garden also. Presence of different pattern of casts shows the presence of different species.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE,
North Ambazari Road, Near Ambazari Lake, Nagpur

NAAC ACCREDITED GRADE 'A' WITH CGPA 3.01 (Third Cycle)

CRITERION-VII

Institutional Values and Best Practices

YEAR-5
2017-18

7.2.1

**Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual during the years 2017-18**

SSR: 2023 FOR NAAC FOURTH CYCLE

DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE, NAGPUR

7.2.1

Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual during the years 2017-18

LIST OF ACTIVITIES 2017-18

Sr. No	Title of the Best Practice	Name of Department or Committee	Name of the In-charge
1.	Maintenance through MCVC (PTCI	Minimum Competency and Vocational Course Department	Mr. Atul Moghe
2.	Blood Donation	National Service Scheme (NSS)	Dr. Pitambar Humane
3.	The Study offloristic biodiversity	National Service Scheme (NSS)	Dr. Pitambar Humane
4.	Publication of Departmental Magazine, "PEARLS"	Chemistry	Dr. Vaishali P. Meshram
5.	IlT spoken Tutorial Certificate course	Computer Science	Mrs.Snehal Narale
6.	Skill development program in collaboration with Department of Microbiology	Computer Science	Mrs.Snehal Narale
7.	Workshop on "Writing Scientific Research Article/Paper"	Computer Science	Mrs.Snehal Narale
8.	Workshop on "Writing Scientific Research Article/Pape	Computer Science	Mrs.Snehal Narale
9.	Designing Project through Active X Control used in Front End.	Computer Science	Mrs.Snehal Narale

10.	Designing Project using an Event Driven Programming	Computer Science	Mrs.Snehal Narale
11.	Workshop on " Writing Scientific Research Article/ Pape	Computer Science	Mrs.Snehal Narale
12.	Cyber Security Aworeness"	Electronics Department	Prof. Mrs. Varsha Rangari
13.	Earn while Learn Scheme	Home Science Department with Alumni Association	M.M Deshpande, Mrs Kalpana Patankar, Ms Avanti Chaphale, Megha Dawande, Kalyani Hingnikar
14.	Vermicomposting and Verm culturing by using green waste from college campus	Zoology	Dr. Kirti M. Paturkar

Prof. Pitambar Humane
IQAC Coordinator

Dr. Akhilesh Peshwe
Principal

➢	Name of the Department	:	Maintenance Department
➢	Name of Teacher In-charge	:	Mr. Atul Moghe
➢	Session of Implementation	:	2017-18
➢	Name of the Class for which the Best Practice was conducted	:	Best practice offers services to all the departments and entire premises of the institution.
➢	Number of students benefitted	:	All the interested students get benefit of maintenance services

1. **Title of the Practice** : **Maintenance through MCVC (PTC)**

2. **Objectives of the Practice** :
   - To minimize maintenance cost of the institutions
   - Entrepreneurship development opportunities for students
   - Skill development of the students

3. **The Context** :

Maintenance cost of equipment and gadgets in all the departments was quite much. Labor is always expensive. Reducing this cost was one of the top most priority of the institution hence this practice started long time back. We were required to provide opportunity for students to gain experience and develop their skills so that they go out of the college with confidence.

4. **The Practice** :

The Maintenance Department of the institution renders its services to all the departments of the institution and attends breakdown in the power supply or electricity related issues. The department attempts to resolve the campus issues innovatively and creatively. The motion sensitive sensors developed by the department are used in the wash areas and toilets. Winding of all the fans is done in the maintenance departments. LED tube lights/bulbs; solar system maintenance

5. **Evidence of Success** :

One of the best practices of this department is that the department *assembles* brand new computers using branded parts saving at least Rs. 5000/- per assembly of the machine. *80 % machines* of our institution have been assembled by the Maintenance Department.

Maintenance of electrical fixtures, wiring, solar system etc. is done through the department. Department has developed a patent. Department has installed motion sensitive device for toilets and wash areas. Major contribution in saving revenue on maintenance.

6. **Problems Encountered and**
   Resources Required   :

   Less staff for maintenance department. All the issues of maintenance cannot be handled; hence some AMC are always required.

7. **Notes (Optional)**   :

   Honorable Peer Team Members of the 3rd Cycle appreciated the contribution of Maintenance Department.

(Mr. Atul Moghe)
Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator
CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal
PRINCIPAL
Dharampeth M. P. Deo Memorial
Science College, Nagpur.

➤ Name of the Department	:	National Service Scheme (NSS)
➤ Name of Teacher In-charge	:	Dr. Pitambar Humane
➤ Session of Implementation	:	2017-18
➤ Name of the Class for which the		NSS Volunteer
Best Practice was conducted	:	
➤ Number of students benefitted	:	NSS Volunteer

1. **Title of the Practice** : **Blood Donation**

2. **Objectives of the Practice** :

- Organization of blood donation camp in memory of Late. Vinayakrao Phatak, on 8th August in every year as well as during the NSS Camp in villages.
- To inculcate the importance and need of blood donation as a social responsibility
- To take care the supply of blood to every needy person in the society in emergency.
- Organization of rallies to spread the awareness about the blood donation benefits and its future prospects.

3. **The Context** :

- Blood and blood components are not generated in the laboratory and hence it must be donated by the individual
- Many misconceptions among the society which leads to collection of less amount of blood
- Inability to fulfill the need of blood for different patients by existing blood banks

4. **The Practice** :

- Organization of blood donation camp in memory of Late Vinayakrao Phatak in the institute, making this practice frequent repetition every year
- The blood is collected by Hedgewar Blood Bank during the blood donation camp and certificates are given to every donor.
- Many students after knowing the importance of blood donation, come forward to donate the blood, this helps them to understand the importance of blood donation and social responsibility.
- Since last many years, this practice made 1000s units of blood were collected during the camp, that definitely helped the society to save the lives.

5. **Evidence of Success** :

- The list of blood donors and geotag photographs are preserved with NSS Unit of the college.
- Also, the list of blood donors from the blood donation camp is available with Hedgewar Blood Bank
- The collected blood was used to save the many lives through Hedgewar Blood Bank.

6. **Problems Encountered and Resources**
   Required   :
   - Though there is urgent need of blood to the society in every medical emergency, there is crunch of blood in blood banks, because of a smaller number of blood donors.
   - Misconceptions about the blood donation and its importance is one of the most important reasons responsible for availability of a smaller number of blood donors
   - Spreading awareness among masses is very much important to overcome this problem in future.

7. **Notes (Optional)**   :
   -

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

CO ORDINATOR
INTERNAL QUALITY ASSURANCE CELL
DHARAMPETH, M. P. DEO MEMORIAL &
SCIENCE COLLEGE, NAGPUR

Dr. Akhilesh V. Peshwe
Principal

Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➤ Name of the Department	:	National Service Scheme (NSS)
➤ Name of Teacher In-charge	:	Dr. Pitambar Humane
➤ Session of Implementation	:	2017-18
➤ Name of the Class for which the		B. Sc. Sem.-III
Best Practice was conducted	:	
➤ Number of students benefitted	:	B. Sc. Sem.-III

1. **Title of the Practice** : **The Study of floristic biodiversity**

2. **Objectives of the Practice** :

- To study the angiosperms around us and to know the local flora this activity is practiced in nearby college campus as well as in the village premises where NSS Camps are organized.
- To make the students aware about the research activities in angiosperm taxonomy.
- To prepare the students for conservation of environment for sustainable development
- To make the student familiar with composition of the local flora and its importance in environment.

3. **The Context** :

- As a student and teacher of Botany, field-based study was found difficult to the students, but is practical based and very much important for the subject students. Motivation of the students for field study as well as teaching them botanical names, plant identification is a challenging job.
- Also, use of flora in field is not possible hence, its use in identification were taught in laboratory. This practice is utmost necessary for the Botany students and hence all the problems were overcome for implementation of this activity.

4. **The Practice** :

- Such student centric projects like field visits to explore Angiosperm flora of different places is uncommon in UG classes, hence students entering in PG after involvement in such activities, are more knowledgeable and well-versed about the basic things in the subject.
- Also, the research attitude is developed among the students with participation in such activities.

5. **Evidence of Success** :

- Data regarding the flora studied in students' centric projects were collected and stored in the department. Many photographs were also taken during the survey, which help the upcoming students to guide them in identification and actual pictures of the plants.

- This data will be useful in compilation of this work in the form of field guide for the students in near future. Such type of practices definitely assists the students in enhancing their interest in the subject as well as to inculcate research attitude among them.The collected blood was used to save the many lives through Hedgewar Blood Bank.

6. **Problems Encountered and Resources**
   Required   :
   - Management of time in academic time table for field visit is an important thing in implementation of this activity.
   - Identification of interested students for field study is necessary during this activity. Accordingly, the method was followed and students were taken for fiend visits in nearby area of the institution as well as during NSS Camp.

7. **Notes (Optional)**   :
   - Students are taken into the field in college campus, nearby college i.e., Ambazari lake premises and even the place where NSS Camps are organized. The HOD of Botany provides the scientific names of the plants to the students found common the areas.
   - The information about the ethnobotanical uses is given while studying in the field. The listing of the plants is made along with their scientific information and ethnobotanical data.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

- **Name of the Department** : Chemistry
- **Name of Teacher In-charge** : Dr. Vaishali P. Meshram
- **Session of Implementation** : 2017-2018
- **Name of the Class for which the** **All Semester**
  Best Practice was conducted :
- **Number of students benefitted** : **All chemistry Students**

1. **Title of the Practice** :

   Publication of Departmental Magazine, "PEARLS"

2. **Objectives of the Practice** :

   - Spread awareness about how to write scientific articles, avoid plagiarism during the publication of any scientific articles, copy right rules, practical thinking, etc.
   - To get the platform to publish their interesting topics.

3. **The Context** :

   The subject related and other thoughts are always running in student's mind. Sometime students face difficulties in how and what to write in scientific articles what type of matter contents of articles and topic of articles so our department decide to do the practice of writing of articles with their own interest and decide theme of articles which are related with chemistry topic or syllabus also

4. **The Practice** :

   The students opt for chemistry as one of the subjects are notified to send their ideas/ write-ups and matter to be published for the PEARLS magazine. After critically look, selected articles are edited and then a magazine is published on college level under the Alchemy society of the department.

5. **Evidence of Success** :

   Cover page theme of magazine, Photographs of activities, published magazine

6. **Problems Encountered and**
   Resources Required :

   Students not referred Books properly so they have less matter and do not understand how to handle the running matter so they required proper guidance and updating the knowledge while writing articles.

7. **Notes (Optional)** : NA

PEARL
2017-2018
ALCHEMY
DEPARTMENT OF CHEMISTRY

Dr. Naishati P. Meshram
Name & Signature of In-Charge of the Practice

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➤	**Name of the Department**	:	**Computer Science**
➤	**Name of Teacher In-charge**	:	**Mrs.Snehal Narale**
➤	**Session of Implementation**	:	**2017-18**
➤	**Name of the Class for which the Best Practice was conducted :**		**B. Sc. II & III**
➤	**Number of students benefitted**	:	**46**

1.   Title of the Practice   :   **IIT Spoken Tutorial Certificate Course**

2.   Objectives of the Practice   :

In the world of digitization, the implementation of ICT in higher education is the need and demand of this era. The Spoken Tutorial project take an   initiative of the 'Talk to a Teacher' activity of the National Mission on Education through Information and Communication Technology (ICT), launched by the Ministry of Human Resources and Development, Government of India. Demand and scope for such professionally trend graduates are visible in the applied fields of almost all basic and core disciplines and faculty in the changing global scenario and are likely to increase in the future.

3.   The Context   :

At the preliminary level, college introduces the courses for the students of computer science. At the initial level students were not aware about the courses offered by IIT Spoken and training program conducted by the College. Due to unawareness they were not register themselves for the FOSS courses like c and cpp, libreoffice suite [base] etc. To make convince the students for their active participation in the training and certification of IIT spoken is the biggest challenge while designing and framing of these courses at the initial level. Apart from the regular syllabus, providing some value addition courses to the students is also huge task as students are busy in their regular academics and extra circular activities.

4.   The Practice   :

It is envisaged that professionally qualified graduates with a sound knowledge of their core discipline and expertise in a concerned skill will have openings in service, industry and self-employment sectors. Spoken Tutorial is a magical Audio Video teaching tool promoting ICT enabled learning. Spoken Tutorials train in simple steps moving from simple to complex levels and give practical training of the theoretical concepts. As a result students fast track their knowledge and cope better with the course. The language used is simple and the tutorials ensure that ample instructions and practice is provided to guarantee self-learning. The method is distance learning

and it is unique as students learn by their own selves (SELF Learning) and individually. To get more detail knowledge about the FOSS training will be provided to the students in the lab Hours. The college runs certificate course of IIT spoken tutorial in which trainer faculty train the students using various methods like power point, audio and video tools for the specific course for which he/she registered. Though computer based, the learning and practice is completely offline once the courses are downloaded into the systems faculty trainer provides the study material to the students and then students listen using earphones, pause, rewind, fast forward as per their progress . This is unique method of teaching in which students learn the different courses from their syllabus as well as advance level also through an interactive manner using simulation which understands hands on the practical application of the theoretical concepts. Self Training can improves students IT/programming/simulation skills as well improves their employment potential. GOI had taken an initiative to launch this project IIT spoken tutorial. Under IIT Spoken Tutorial project the college was introduced the certificate course in the year, 2017-2018. At the beginning of this certificate course only one course (C and CPP) was introduced for computer science students only then after 2-3 years all the students benefited with this certificate course. Progressively more number of courses were added and offered to the students by the college. Since then the course is running smoothly, computer department of the college provided training to the students.

5.   **Evidence of Success**   :

- The list of students appeared and Passed for the online examination of IIT spoken Tutorial Certificate course keep in the department of computer science.
- Some of the students get benefited from the certificate which they received after clearing the exam. Company people note this certificate at the time of selection for their company interview during the job process.
- Students of computer science get enhance their subject knowledge with these course.
- All the details regarding the practice are available on college website
  https://www.dharampethscience.com/iit-spoken-tutorial-course/

6.   **Problems Encountered and Resources**
      Required   :

At first time it was quite difficult for the faculty to make convince to the students about their enrollment for the various courses of the IIT spoken courses offer by the college. Students were unaware about the unmapped courses offered by IIT.

Student's personal counseling helps the faculty to make them comfortable in the courses in which they were enrolled.

It was very difficult for the faculties to handle the problems of the students during their online examination process as they were not familiar with the platform.

Due to less no of computers, some of the students had faced the difficulty during their

7.   **Notes (Optional)**   :

C and CPP 2nd Topper :Prajkta
Puranik(62)

Name & Signature of In-Charge of the Practice

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IQAC Co-ordinator

Dr. Akhilesh V. Peshwe
Principal

> **Name of the Department**   :   **Computer Science**
> **Name of Teacher In-charge**   :   **Mrs. Snehal Narale**
> **Session of Implementation**   :   **2017-18**
> **Name of the Class for which the**   **B. Sc. I & II**
>   **Best Practice was conducted**   :
> **Number of students benefitted :**   **08**

1. **Title of the Practice**   :

Skill development program in collaboration with Department of Microbiology

2. **Objectives of the Practice**   :

To develop basic computer related skills in students so that they can use ICT tools in their

daily academic life for processing their seminars, assignments and Practical journals.

3. **The Context**   :

In traditional schooling and at junior level very few students find opportunity to acquire skill in handling computers and regularly using it for academic purpose to prepare their worksheets , assignments and record books and hence are not trained enough to handle computes for using MS-word, MS-excel & PowerPoint. In the present age, technology is everywhere, even in the classroom. The modern classroom boasts of audio-visual teaching methods. This has made learning interesting for students. In this technology-oriented world, it is needless to say that the importance of computers has also increased a lot. The students need to learn computers as it helps to improve their work. He most basic jobs involve computers in the modern business world. To help students prepare for a wide variety of possible careers and joining classes based on computer education, teaching them how to use computers is very important. The basic knowledge helps them to join advanced courses based on the computer in the future

4. **The Practice**   :

Keeping above context in the department of computer science in collaboration with department of Microbiology conducted the Workshop on 'Enhancement of Learning Skill through ICT Tools" for the students of Life Science' from 25/09/2017 to 29/09/2017. The participation and enrolment of the students in this course was voluntary. In this course around 08 students were enrolled and trained to acquire some fundamental skills in computers as follow-

❖ Working of Computers

❖ Categories of Computers

❖ Introduction to Input device, Output device & CPU, hardware, software, memory management etc.

❖ Formatting text and paragraphs, inserting tables and pictures, different page layouts etc.

The students were given access to computers to acquire hands on training. Also students were guided for using new tools and methods of communication. This helps them to have online communication with their teachers. They can also check their lesson plans or grades online. The students can send assignments to their teachers from any place. The faculty gave a brief introduction on communication through the internet to the student participants. After the certificate course students were trained in online communication and preparing their seminars and records.

5. **Evidence of Success** :

Students developed confidence in handling computers for processing their daily work like seminars, practical journals, assignments etc. Self-processing of Microbiology journals by the students was the huge success of this practice.

6. **Problems Encountered and Resources**
Required :

Students need motivation to participate in such type Workshop. Difficulty is faced in setting time table for one week workshop due to time slots of different regular subject's theory and practical classes. Also difficulty is faced in handling slow learners as some students take much of the time to acquiring computer skills. To conduct such workshops different resources like additional manpower who can individually guide students and train them is needed as well as computers and internet facility is required.

7. **Notes (Optional)** :

At the end of this workshop students will be able to apply their knowledge in their daily activities of the college. It also helps them to get better job in the future also.

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> ➤ **Name of the Department** : **Computer Science**
> ➤ **Name of Teacher In-charge** : **Mrs.Snehal Narale**
> ➤ **Session of Implementation** : **2017-18**
> ➤ **Name of the Class for which the** **B. Sc. II & III**
>   **Best Practice was conducted** :
> ➤ **Number of students benefitted :** **46**

1. **Title of the Practice** : Workshop on "Writing Scientific Research Article/Paper"

2. **Objectives of the Practice** :

Research in innovation is the new era for the students. Conduction of such type of the workshop helps the students to create and develop their interest and idea in the field of Research. Students also get detail knowledge of the topic of the research and its future scope. They also understand the whole process of writing article or paper on their topic of interest in the computer science or recent trends and technology used in this particular subject. It would help the students in the selection of topic of interest as well as writing a Research paper or article

3. **The Context** :

At the initial level the response of the students were very poor as if they were not aware about the research area and its working pattern for UG Students. It is very difficult for the faculty to convince them to attend such types of workshops. While conducting such type of the workshop specially which are base on the research in an online mode faculty has noticed as a challenges:

- Lack Of knowledge in the field of science and technology
- Require more Motivation in Students
- Lack of knowledge in the field of research

While considering all the challenges that may have to face during the conduction of the problem the workshop was designed only for the interested students those who really wants to do research. Faculty has interacts with the students during her regular classes and ask them whether they are interested or not.

4. **The Practice** :

Writing scientific article or research paper is a basic skill that must be learned by the students only using repetitive practice of reading, writing and revising. This workshop is intended to impart researchers/students with basic skills in writing and publishing a scientific paper in a peer reviewed journal. The department of computer science takes an initiative to train the students in the field of research by conducting such type of workshops to promote the students to work in the research area. UG students are unaware about this particular area of research as compare to

the students of post graduation. To break this constraints the department conducted the workshop based on the research paper and the compete process of writing research paper. This would be a unique activity for the students of computer science organized by the department from last four years continuously. In higher education of India researcher plays a vital role to build the nation more ahead and grow in the highest level. In this workshop the list of the contents will be covered like

- What is research? What it its need?

- What is the aim and objectives of conducting this workshop based on the research paper or article?

- What would be expected outcome/results from the workshop?

- Difference between research paper and article

- Different steps that must be follow by the students while writing scientific article /paper.

- Detailing of writing scientific research paper and do's and don'ts of it. Some of the points have been included as given below section wise.

- **Formatting Section**
- ❖ Use active voice
- ❖ Follow the style guide for publication
- ❖ Organize the paper in the proper order
- **Writing the Sections must include How to**
- ❖ Start with the Materials and Methods section.
- ❖ Describe the results in the Results section.
- ❖ Interpret your data in the Discussion section.
- ❖ Review the literature in the Introduction
- ❖ Summarize the paper in the Abstract.
- ❖ Write a descriptive Title.
- **Making the Figures and Tables**
- ❖ Write figure legends that describe the data
- **Citing Your Sources Properly.**

The workshop will also the help the student participants to understand how to outline a scientific article or paper, become familiar to construct an argument in a scientific manuscript, do effective literature search and review, manage references using different software, understand authorship, plagiarism and ethics in publication.

5. **Evidence of Success**   :

At the end of the workshop student participants would understand the complete process of writing scientific research article /paper and how to publish the paper or article in the renowned journal.   If participants have sufficient data to begin writing a paper, they could work on the draft during group work.   Some of the student participants show their interest to write an article or research paper. They start reading and searching the topic of their interest to write an article at the initial level.   At the initial level they just tried to copy the concept from the net and reframe

it. But after this seminar some of them really understand what are research and its nothing to copy the data but using the basic idea we need to add our innovations into it. Some of the students submit their article/paper to the faculty and some are working on it .
Students list is available in the department.

6. **Problems Encountered and Resources**
   Required   :

   When this workshop was conducted first time it was quite difficult for the faculty (Mrs.Snehal Narale) to make convince to the students how this would help them in their future. Time to time motivation is required for the students and the practice of arranging such types of workshop now it is quite easy to make the registration for the students. Due to time constraint the workshop is organized for one day only. But the department has planned to invite some guests to give more additional information about the research area and what is the scope of this for UG students in their life.

7. **Notes (Optional)**   :
   If this practice is undertaken by the every year it would help to increase number researcher those who have really interest to do research and create job opportunities in research field.

Name & Signature of In-Charge of the Practice

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➢ **Name of the Department** : **Computer Science**
➢ **Name of Teacher In-charge** : **Mrs.Snehal Narale**
➢ **Session of Implementation** : **2017-18**
➢ **Name of the Class for which the** **B. Sc. III**
   Best Practice was conducted :
➢ **Number of students benefitted :** **21**

1. **Title of the Practice** : **Workshop on "Writing Scientific Research Article/Paper"**

2. **Objectives of the Practice** :
Research in innovation is the new era for the students. Conduction of such type of the workshop helps the students to create and develop their interest and idea in the field of Research. Students also get detail knowledge of the topic of the research and its future scope. They also understand the whole process of writing article or paper on their topic of interest in the computer science or recent trends and technology used in this particular subject. It would help the students in the selection of topic of interest as well as writing a Research paper or article

3. **The Context** :
At the initial level the response of the students were very poor as if they were not aware about the research area and its working pattern for UG Students. It is very difficult for the faculty to convince them to attend such types of workshops. While conducting such type of the workshop specially which are base on the research in an online mode faculty has noticed as a challenges:

*   Lack of knowledge in the field of science and technology
*   Require more Motivation in Students
*   Lack of knowledge in the field of research

While considering all the challenges that may have to face during the conduction of the problem the workshop was designed only for the interested students those who really wants to do research. Faculty has interacts with the students during her regular classes and ask them whether they are interested or not.

4. **The Practice** :
Writing scientific article or research paper is a basic skill that must be learned by the students only using repetitive practice of reading, writing and revising. This workshop is intended to impart researchers/students with basic skills in writing and publishing a scientific paper in a peer reviewed journal. The department of computer science takes an initiative to train the students in the field of research by conducting such type of workshops to promote the students to work in

the research area. UG students are unaware about this particular area of research as compare to the students of post graduation. To break this constraints the department conducted the workshop based on the research paper and the compete process of writing research paper. This would be a unique activity for the students of computer science organized by the department from last four years continuously. In higher education of India researcher plays a vital role to build the nation more ahead and grow in the highest level. In this workshop the list of the contents will be covered like

- What is research? What it its need?
- What is the aim and objectives of conducting this workshop based on the research paper or article?
- What would be expected outcome/results from the workshop?
- Difference between research paper and article
- Different steps that must be follow by the students while writing scientific article /paper.
- Detailing of writing scientific research paper and do's and don'ts of it. Some of the points have been included as given below section wise.
- **Formatting Section**
  - Use active voice
  - Follow the style guide for publication
  - Organize the paper in the proper order
- **Writing the Sections must include How to**
  - Start with the Materials and Methods section.
  - Describe the results in the Results section.
  - Interpret your data in the Discussion section.
  - Review the literature in the Introduction
  - Summarize the paper in the Abstract.
  - Write a descriptive Title.
- **Making the Figures and Tables**
  - Write figure legends that describe the data
- **Citing Your Sources Properly.**

The workshop will also the help the student participants to understand how to outline a scientific article or paper, become familiar to construct an argument in a scientific manuscript, do effective literature search and review, manage references using different software, understand authorship, plagiarism and ethics in publication.

5. **Evidence of Success**   :
At the end of the workshop student participants would understand the complete process of writing scientific research article /paper and how to publish the paper or article in the renowned journal.   If participants have sufficient data to begin writing a paper, they could work on the draft during group work.   Some of the student participants show their interest to write an article or research paper. They start reading and searching the topic of their interest to write an article at

the initial level.   At the initial level they just tried to copy the concept from the net and reframe it. But after this seminar some of them really understand what are research and its nothing to copy the data but using the basic idea we need to add our innovations into it. Some of the students submit their article/paper to the faculty and some are working on it .

Students list is available in the department.

6. **Problems Encountered and Resources**
   Required   :

   When this workshop was conducted first time it was quite difficult for the faculty (Mrs.Snehal Narale) to make convince to the students how this would help them in their future. Time to time motivation is required for the students and the practice of arranging such types of workshop now it is quite easy to make the registration for the students. Due to time constraint the workshop is organized for one day only. But the department has planned to invite some guests to give more additional information about the research area and what is the scope of this for UG students in their life.

7. **Notes (Optional)**   :
   If this practice is undertaken by the every year it would help to increase number researcher those who have really interest to do research and create job opportunities in research field.

Name & Signature of In-Charge of the Practice

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➤	**Name of the Department**	:	Computer Science
➤	**Name of Teacher In-charge**	:	Mrs.Snehal Narale
➤	**Session of Implementation**	:	2017-18
➤	**Name of the Class for which the Best Practice was conducted :**		B. Sc. III
➤	**Number of students benefitted**	:	22

1. Title of the Practice   :   **Designing Project through Active X Control used in Front End.**

2. Objectives of the Practice   :

Conduction of such type of the workshop is the biggest challenge for the faculty as many of the students are not aware about the IT industry requirement. Hands on training and workshop help them to understand how actually the project is design, tested and implemented. Students don't have any idea about the front end and backend with its use while designing any project or application. Clarification and differentiate between front end and backend with its use and implementation is quite challenging issue for the faculty. The workshop was conducted for the students of the final year because they use visual basic as a front end in their regular curriculum. To develop an interest among the student to design an application project is the challenge because many of them have fear in their mind whether they work properly or not

3. The Context   :

To develop any project using frontend and back end must have to gone through the phases. The important phases of Project development require a commitment to a systematic, iterative process of assessment, design, implementation, and evaluation. In this workshop the faculty elaborates every stage of project development including design phase. Project design is one of the stages of project development. The department had taken an initiative to conduct the workshop which are based on topic from their syllabus which help the students to get more detail knowledge as well as they were able to design the project. This practice enhances teaching learning process. After Completion of the workshop students will be able to understand the process which is used to described using a flow chart or through text, it is important to remember that the process is not linear. Although each stage or phase of the project development and implementation process can be described (and will be in this manual), the stages are not discrete. These steps overlap and interrelate; they provide

a dynamic and flexible guideline for developing effective projects efficiently. Project development is a cyclical process in which the results of one phase become the starting products for the next phase. The following stages are important to develop a good project:

- Need assessment
- Design
- Implement
- Evaluate

Out of all these stages this workshop gives more emphasis on design process and brief about the other stages of project development. ActiveX controls are new for the students. They were used the controls but not know these are ActiveX controls which are being used to develop project used in VB as a front end. This workshop create an opportunities for the students to develop their programming skills.

4. The Practice :

To develop any project using frontend and back end must have to gone through the phases. The important phases of Project development require a commitment to a systematic, iterative process of assessment, design, implementation, and evaluation. In this workshop the faculty elaborates the every stage of project development including design phase. Project design is one of the stages of project development. The department had taken an initiative to conduct the workshop which are based on topic from their syllabus which help the students to get more detail knowledge as well as they were able to design the project. This practice enhances teaching learning process. After Completion of the workshop students will be able to understand the process which is used to described using a flow chart or through text, it is important to remember that the process is not linear. Although each stage or phase of the project development and implementation process can be described (and will be in this manual), the stages are not discrete. These steps overlap and interrelate; they provide a dynamic and flexible guideline for developing effective projects efficiently. Project development is a cyclical process in which the results of one phase become the starting products for the next phase. The following stages are important to develop a good project:

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the students. They were used the controls but not know these are ActiveX controls which are being used to develop project used in VB as a front end. This workshop creates an opportunities for the students to develop their programming skills.

5. **Evidence of Success**   :
    *   List of the students is available in the department those who have attended this workshop.
    *   The project designs by the students are available in the computer science department laboratory.

6. **Problems Encountered and Resources**
    Required   :

    During the conduction of the practice many problem has encountered many problems like Time to time motivation is required for the students and the practice of arranging such types of workshop now it is quite easy to make the registration for the students. Due to time constraint the workshop is organized for one day only. But the department has planned to invite some guests to give more additional information about the project design and the scope for UG students in their life.

7. **Notes (Optional)**   :
    If this practice is undertaken by the every year it would help to enhance more number of the students become good software developer and placed at a well-known company.

Name & Signature of In-Charge of the Practice

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- Name of the Department   :   **Computer Science**
- Name of Teacher In-charge   :   **Mrs.Snehal Narale**
- Session of Implementation   :   **2017-18**
- Name of the Class for which the   **B. Sc. III**
  Best Practice was conducted :
- Number of students benefitted   :   **15**

1. **Title of the Practice**   :   **Designing Project using an Event Driven Programming**

2. **Objectives of the Practice**   :

   The main objective of this activity was to develop interest in the subject. The best approach to design a software application or a project is to first understand what the requirements are. Implementation of such activity help the students to understand the requirement from basic core concepts of the subject used as a front end. As per the demand of the software industry students must know all the phases of project design and development. This workshop helps them to know all the steps of project in detail.

3. **The Context**   :

   Conduction of such type of the workshop is the biggest challenge for the faculty as many of the students are not aware about the IT industry requirement. Hands on training and workshop help them to understand how actually the project is design, tested and implemented. Students don't have any idea about the front end and backend with its use while designing any project or application. Clarification and differentiate between front end and backend with its use and implementation is quite challenging issue for the faculty. The workshop was conducted for the students of the final year because they use visual basic as a front end in their regular curriculum. To develop an interest among the student to design an application project is the challenge because many of them have fear in their mind whether they work properly or not

4. **The Practice**   :

   To develop any project using event driven programming language requires details of that programming language and it's working through different phases . The important phases of Project development require a commitment to a systematic, iterative process of assessment, design, implementation, and evaluation. In this workshop the faculty elaborates the every stage of project development including design phase.

Project design is one of the stages of project development. The department had taken an initiative to conduct the workshop which are based on topic from their syllabus which help the students to get more detail knowledge as well as they were able to design the project. This practice enhances teaching learning process. After Completion of the workshop students will be able to understand the process which is used to described using a flow chart or through text, it is important to remember that the process is not linear. Although each stage or phase of the project development and implementation process can be described (and will be in this manual), the stages are not discrete. These steps overlap and interrelate; they provide a dynamic and flexible guideline for developing effective projects efficiently. Project development is a cyclical process in which the results of one phase become the starting products for the next phase. In this workshop the faculty focuses on the following points:

- Difference between Event Driven and other Programming Languages.
- Working flow of event driven programming language
- Different phases of project design activity .
- Basic programming knowledge require to build or design project.

Out of all these stages this workshop gives more emphasis on design process used in event driven programming language and brief about the other stages of project development. This workshop create an opportunities for the students to develop their programming skills.

5. **Evidence of Success**   :
   - List of the students is available in the department those who have attended this workshop.
   - The project designs by the students are available in the computer science department laboratory.

6. **Problems Encountered and Resources Required**   :

   During the conduction of the practice many problem has encountered many problems like Time to time motivation is required for the students and the practice of arranging such types of workshop now it is quite easy to make the registration for the students. Due to time constraint the workshop is organized for one day only. But the department has planned to invite some guests to give more additional information about the project design and the scope for UG students to get some good job in the field of computer science.

7. **Notes (Optional)**   :

If this practice is undertaken by the every year it would help to enhance more number of the students become good software developer and placed at a well-known company.

Name & Signature of In-Charge of the Practice

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IQAC Co-ordinator

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Principal

➤	**Name of the Department**	:	**Computer Science**
➤	**Name of Teacher In-charge**	:	**Mrs.Snehal Narale**
➤	**Session of Implementation**	:	**2017-18**
➤	**Name of the Class for which the Best Practice was conducted :**		**B. Sc. III**
➤	**Number of students benefitted**	:	**28**

1.   **Title of the Practice** : **Workshop on " Writing Scientific Research Article/ Paper".**

2.   **Objectives of the Practice** :

Research in innovation is the new era for the students. Conduction of such type of the workshop helps the students to create and develop their interest and idea in the field of Research. Students also get detail knowledge of the topic of the research and its future scope. They also understand the whole process of writing article or paper on their topic of interest in the computer science or recent trends and technology used in this particular subject. It would help the students in the selection of topic of interest as well as writing a Research paper or article.

3.   **The Context** :

At the initial level the response of the students were very poor as if they were not aware about the research area and its working pattern for UG Students. It is very difficult for the faculty to convince them to attend such types of workshops. While conducting such type of the workshop specially which are base on the research in an online mode faculty has noticed as a challenges:

- Lack Of knowledge in the field of science and technology
- Require more Motivation in Students
- Lack of knowledge in the field of research

While considering all the challenges that may have to face during the conduction of the problem the workshop was designed only for the interested students those who really wants to do research. Faculty has interacts with the students during her regular classes and ask them whether they are interested or not.

4.   **The Practice** :

Writing scientific article or research paper is a basic skill that must be learned by the students only using repetitive practice of reading, writing and revising. This workshop is intended to impart researchers/students with basic skills in writing and publishing a scientific paper in a peer reviewed journal. The department of computer science takes an

initiative to train the students in the field of research by conducting such type of workshops to promote the students to work in the research area. UG students are unaware about this particular area of research as compare to the students of post graduation. To break this constraints the department conducted the workshop based on the research paper and the compete process of writing research paper. This would be a unique activity for the students of computer science organized by the department from last four years continuously. In higher education of India researcher plays a vital role to build the nation more ahead and grow in the highest level.

In this workshop the list of the contents will be covered like
- What is research? What it its need?
- What is the aim and objectives of conducting this workshop based on the research paper or article?
- What would be expected outcome/results from the workshop?
- Difference between research paper and article
- Different steps that must be follow by the students while writing scientific article /paper.
- Detailing of writing scientific research paper and do's and don'ts of it. Some of the points have been included as given below section wise.
- **Formatting Section**
  - ❖ Use active voice
  - ❖ Follow the style guide for publication
  - ❖ Organize the paper in the proper order
- **Writing the Sections must include How to**
  - ❖ Start with the Materials and Methods section.
  - ❖ Describe the results in the Results section.
  - ❖ Interpret your data in the Discussion section.
  - ❖ Review the literature in the Introduction
  - ❖ Summarize the paper in the Abstract.
  - ❖ Write a descriptive Title.
- **Making the Figures and Tables**
  - ❖ Write figure legends that describe the data
- **Citing Your Sources Properly.**

The workshop will also the help the student participants to understand how to outline a scientific article or paper, become familiar to construct an argument in a scientific manuscript, do effective literature search and review, manage references using different software, understand authorship, plagiarism and ethics in publication.

5. **Evidence of Success**   :

At the end of the workshop student participants would understand the complete process of writing scientific research article /paper and how to publish the paper or article in the renowned journal. If participants have sufficient data to begin writing a paper, they could work on the draft during group work. Some of the student participants show their interest

to write an article or research paper. They start reading and searching the topic of their interest to write an article at the initial level. At the initial level they just tried to copy the concept from the net and reframe it. But after this seminar some of them really understand what are research and its nothing to copy the data but using the basic idea we need to add our innovations into it. Some of the students submit their article/paper to the faculty and some are working on it .

Students list is available in the department.

6. **Problems Encountered and Resources Required**   :

When this workshop was conducted first time it was quite difficult for the faculty (Mrs. Snehal Narale) to make convince to the students how this would help them in their future. Time to time motivation is required for the students and the practice of arranging such types of workshop now it is quite easy to make the registration for the students. Due to time constraint the workshop is organized for one day only. But the department has planned to invite some guests to give more additional information about the research area and what is the scope of this for UG students in their life.

7. **Notes (Optional)**   :

If this practice is undertaken by the every year it would help to increase number researcher those who have really interest to do research and create job opportunities in research field.

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane
IQAC Co-ordinator
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Dr. Akhilesh V. Peshwe
Principal
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Science College, Nagpur.

➤	Name of the Department	:	Electronics Department
➤	Name of Teacher In-charge	:	Prof. Mrs. Varsha Rangari
➤	Session of Implementation	:	2017-18
➤	Name of the Class for which the Best Practice was conducted	:	Interested College Students
➤	Number of students benefitted	:	10 School students, total students 3797.

1. **Title of the Practice** : *"Cyber Security Awareness"*

2. **Objectives of the Practice** :
   - To make the youth alert while working online.
   - To prevent falling prey to cyber criminals
   - To stop youth from getting indulged in cyber-crimes or similar activities.
   - To select volunteers and train them to give presentations in schools.
   - To provide them a stipend and intern certificate on successful completion of tasks.

3. **The Context** :

   This activity started from this session 2017-18 in collaboration with Quick Heal Foundation, Pune. The mission of this activity is to keep the kids safe online. As kids grow up in this digital age, keeping up the latest trends and technology is part of everyday life. Parents, on the other hand, are oftentimes less savvy than their kids when it comes to cyber behavior. And due to lack of cyber awareness many crimes are happening online and is bound to increase drastically in near future. Having sensed the potential online danger, MoU was signed with Quick Heal Foundation.

4. **The Practice** :

   In the beginning of this academic year, MoU with Quick Heal Foundation, Pune was done. Interested college students were selected. They were trained by Quick Heal Foundation trainers. These students go to different colleges, take permission from the principal of that college and schedule their presentation. Before and after feedback from school students was taken after the presentation. Also remarks from the principal were taken. At the end of this activity stipend and intern appreciation certificate is given to volunteers.

5. **Evidence of Success** :

Year	Total No. of Volunteers	No. of School targeted	Total No. of Students Beneficiaries	Total Amount earn by the Volunteers
2017-18	10	10	3797	26,600/-

School students learn many things like how to be secure when online. From this activity student volunteers not only earn money or certificates but also enhance their personality and confidence level.

6. **Problems Encountered and**
   Resources Required   :

Being the first year, no school principals were allowing the student Volunteers for presentation. Then they were trained how to convince them. After that they were getting permission from the school which boosted up their confidence level.

7. **Notes (Optional)**   :

Name & Signature of In Charge of the Practice

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Dr. Akhilesh V. Peshwe
Principal
Principal
Dharampeth M.P. Deo Memorial
Science College, Nagpur.

➢	**Name of the Department**	:	Home Science Department with Alumni Association
➢	**Name of Teacher In-charge**	:	M.M Deshpande, Mrs Kalpana Patankar, Ms Avanti Chaphale, Megha Dawande, Kalyani Hingnikar
➢	**Session of Implementation**	:	2017-18
➢	**Name of the Class for which the Best Practice was conducted**	:	B.Sc.H.Sc. Annual Batch +Semester batches
➢	**Number of students benefitted**	:	

1.   Title of the Practice : **Earn while Learn Scheme**

2.   Objectives of the Practice :

Apprenticeship for Skills & earning from manufactured items needed for Diwali Exhibition cum Sale.

3.   The Context :

The Project was initiated for teaching Articles for sale & earn profit. Also to understand the importance of budgeting and using resources to earn maximum profit.

4.   The Practice :

Students listed the articles to be made. Calculated the Costs. Were given a corpus amount as resource. They worked in groups.   Prepared the items for Sale.

5.   Evidence of Success :

Students learnt a lot from this activity with dynamic leadership with Alumni Ms Avanti Chaphale & Megha Dawande. Kalyani Hingnikar. The response was huge. People from nearby community joined for the Exhibition Cum Sale. It was a one-day activity.

6.   Problems Encountered and   Nil
      Resources Required :

7.   Notes (Optional) :

➢	**Name of the Department**	:	Zoology
➢	**Name of Teacher In-charge**	:	Dr. Kirti M. Paturkar
➢	**Session of Implementation**	:	2017
➢	**Name of the Class for which the Best Practice was conducted :**		B.Sc. SEM III
➢	**Number of students benefitted**	:	26

1. **Title of the Practice** :

   Vermicomposting and Verm culturing by using green waste from college campus.

2. **Objectives of the Practice** :

   - Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean.
   - It creates awareness among the students about clean environment and best from waste.
   - To provide experiential knowledge of subject as it is a part of zoology curriculum.

3. **The Context** :

   Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean. It will also create awareness among the students about clean environment and best from waste. Vermicast (also called worm castings, worm humus or worm manure) is the end-product of the breakdown of organic matter by an earthworm These castings have been shown to contain reduced levels of contaminants and a higher saturation of nutrients than do organic materials before vermicomposting. Vermicompost contains water-soluble nutrients and is an excellent, nutrient-rich organic fertilizer and soil conditioner. Vermi-composting is a part of applied Zoology. To create an awareness among the students about environment Department of Zoology has taken an initiative and started this activity. We use pit method for vermicomposting. We prepared vermicasts from green wastes from college campus.

4. **The Practice** :

   Uniqueness of this activity is that we made this project research oriented through which variety of vermicasts generated from different type wastes. Analysis of carbon and other important element present in different type of casts .

5. **Evidence of Success** :

   300 kg vermicompost sold by the students

6. **Problems Encountered and Resources**   **Nil**
   Required   :

7. **Notes (Optional)**   :

Name & Signature of In-Charge of the Practice

Prof. Pitambar Humane

IQAC Co-ordinator

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