

DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE, NAGPUR

6.3.2 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the year

Conference Brochure and Fees Receipt



VIRTUAL NATIONAL SEMINAR ON FERROELECTRICS AND DIELECTRICS

January 10-13, 2021



Organized by
Department of Physics
Rashtrasant Tukadoji Maharaj Nagpur University,
M.J.F Educational Campus, Amravati Road, Nagpur-440033, India

In collaboration with
Dharampeth M.P. Deo Memorial Science College, Nagpur



For more details visit us on: www.nsf2021.org



NSFD

"National Seminar on Ferroelectrics & Dielectrics" (NSFD-2021) Internal Dielectrics Conference, initiated by the Dielectrics and Ferroelectrics group in India in 1980, has successfully completed 40 years of journey since its humble beginning at Indian Institute of Technology, Delhi. Dielectrics class of materials also referred as polar materials, include PZT, P(VDF), PVDF and ferroelectric materials, play key role in modern technology, finding its applications in data storage, energy harvesters and wireless communication. This symposium will address developments in materials for a wide range of related technologies. It will bring together expert from diverse discipline and broadly cover materials and device related in the field. Special tutorial sessions will be arranged for young researchers and initiators to provide core research information. The Topics of Seminar is broadly classified into five areas.

I. Fundamentals of dielectrics, ferroelectrics & related materials

- Relaxor and bicubic ferroelectrics dielectric and disorder effects
- Ferroelectric tunneling junctions, ferroelectric and magnetoresistive barriers
- Domain and domain wall engineering (functional domain walls)
- Ionic and electronic phenomena in ferroelectrics
- Surface and interface tailoring and basic emergent phenomena Topological states
- Multiferroics & magnetoelectrics, magnetoelectric phenomenon

II. Materials design and processing

- Bulk materials, Thin films, heterostructures, composites, nano fibers and multilayers
- Textured materials
- Film processing technologies (preparation, characterization)
- Patterning methods (etch-shape forming, microfabrication)
- Biomaterials and Lead-free systems
- Hybrid materials
- Low-energy sintering

III. Characterization of polar materials

- Fundamental phenomena probed by scanning techniques (X-ray and neutron scattering)
- Electron microscopy (surface and interface phenomena, in-situ studies of domain switching)
- Raman and optical spectroscopies
- Local phenomena by scanning probe microscopic techniques
- Optical near-field imaging
- Spectroscopic probing of electrochemical phenomena
- Electrical and electromechanical characterization

IV. Applications of ferroelectrics and dielectrics

- Dielectrics, Ferroelectrics and antiferroelectrics for energy applications
- Medical ultrasound transducers, ultrasound actuators, and sensors for harsh environments, sound absorption materials
- Ferroelectric memory materials and devices
- Piezoelectricity (high-performance and lead-free piezoelectrics, piezoelectric polymers, MEMS and other integrated piezo-devices, sensors and actuators)
- Piezoelectric materials and devices
- Optical phenomena tuning: photonic band-gaps, laser sensors and phosphorescence materials
- Biomaterials (biocompatible, polypyrrolid, etc.)
- Relaxor dielectrics, ferroelectrics and smart materials

V. Theoretical modeling in dielectrics

- Phenomenological Analysis of dielectrics and ferroelectrics
- Nonlinearity and scaling behaviour in non-linear dielectrics
- First principle and Ab-initio studies in dielectrics, ferroelectrics, piezoelectrics and multiferroics.

Abstract submission

Authors are requested to submit their abstract in the provided template only through online portal of abstract submission available on the website: www.nsf2021.org latest by Dec 1, 2020.

Publication

The full length manuscripts of the presented papers will be published in Ferroelectrics journal after peer review.



RTMNU Nagpur

Nagpur University was established on 4th August, 1923 with six affiliated colleges and 927 students. During 1947, the number of students increased to about 9000 accompanied by the improvement and diversification of curricula and expansion in the range of subjects. It was in 1958 that some new Departments in Arts and Social Science faculties were opened. The major expansion, however, came in 1963 when several science and other teaching departments were started. The Departments were shifted to spacious buildings in the main campus in 1972-73. During ninety years of its existence, the University has progressed satisfactorily and doing well in the midst of constraints of different sorts. This has been possible because of futuristic vision about higher education of the personalities who adorned the chair of Vice-Chancellor of this University. Their determination and dedication helped a lot in progress of this University.

Presently University comprises of Thirty-two Postgraduate Teaching Departments (PGTD), three Constituent Colleges/Institutions (Law college, Laxminarayana Institute of Technology, and College of Education). Eight hundred forty-two colleges are affiliated The Department and conducted college/Institution buildings are spread over in 14 campuses with an overall area of 318 acres. Following programs under various faculties are run through the above-mentioned PGTD, Constituted College and Affiliated Colleges.

Department of Physics

The Department came into existence in 1963 along with other Science Departments for imparting post-graduate education and for promoting research. Research activities of the Department are mainly focused on materials science research and have grown steadily since its inception, expanding into areas of functional materials for Fuel Cell, batteries, Sensors and Energy harvesting materials and So on. Department is actively involved in R & D as well as consultancy project and has also collaborations with several R & D organization in the India namely DGC-DAE-CSIR, Indore; IITCAT, Indore; NEERI, Nagpur; IISER, Pune etc as well as outside the India with Penn State University, State College, USA; Institute of Energy and Climate change, Forschungszentrum Jülich GMBH, Germany. The laboratories are adequately equipped with State-of-Art facilities. Infrastructure comprises of wide variety of structural and Electric and dielectric Characterization for AC/DC measurement technique with high temperature characterization capability. Computational facility workstations with advance configurations are also available.

Registrations

Category	Registration
Student participants	Nil
Faculty participants	₹ 500/-
Industry participation	₹ 1000/-



National Advisory Committee

- Dr A Sharma, Chairman, DST, New Delhi
- Dr S B Krupandhi, IISc Bangalore
- Dr S M Yusuf, BARC, Mumbai
- Dr A R Kulkarni, IIT Bombay
- Dr R. P Yandon, University of Delhi
- Dr D. Pandey, IIT BHU
- Dr V R K Murthy, VIT Vellore
- Dr H L Bhat, IISc Bangalore
- Dr A Garg, IIT Kanpur
- Dr R N P Choudhary, SOA University, Bhubaneswar
- Dr P K Bajpai, GGU, Bilaspur
- Dr K K Raina, VC, IIT University
- Dr Chandra Prakash, DRDO, New Delhi
- Dr R Chatterjee, IIT Delhi
- Dr K L Yadav, IIT Roorkee
- Dr K Sreenivas, University of Delhi
- Dr K Prasad, Bhagalpur University
- Dr V Gupta, University of Delhi
- Dr T P Sinha, Bose Institute Kolkata
- Dr K Singh, Former VC, SGBAU
- Dr H Tiwari, Ex. VC, IIT, Bhopal
- Dr R Kurchania, MANIT Bhopal
- Dr H B Sharma, Manipal University
- Dr V K Deshpande, VNIIT, Nagpur

Patron

- Dr S R Chaudhari, Vice-Chancellor, RTMNU
- Dr S S Dhadhe, Pro-Vice-Chancellor, RTMNU
- Dr N Khatri, Registrar, RTMNU
- Dr O P Chimankar, Head, Dept of Physics, RTMNU
- Dr Akhilesh Peshwe, Principal, Dharampeth M.P. Deo Memorial Science College Nagpur.

Convener

Dr Smita Acharya

Co-Convener

Dr S B Kundawar
Dr S J Dhole

Secretary

Dr U A Palkundwar
Dr A D Deshmukh

Registration Fee Payment details

RTGS Bank Details

Account Name: Physics Promotion & Charitable Trust, Nagpur

IFSC Code: IISC00

Account number: BKID0008762

₹70610100104227 Branch: Bank of India, RTM University

Local organizing committee

- Dr Prabhat Ambekar
- Dr Kalpana Nagle
- Dr Jeevit Baradwaja
- Dr Anil Wadhwani
- Dr Anish Daryapurkar
- Dr Shripa Parule
- Dr Sanjaykumar Ghose
- Dr Vinayak Gadgilwad
- Dr Shradha Shrivastav
- Dr Shalini Sanyal
- Dr Shaalika Joshi
- Dr Rohini Khandade
- Dr Prabhant Choudhary
- Dr Pratyasha Kar
- Dr Priya Tamram
- Dr Seema Ushde
- Dr Ratnadevi Langewar
- Dr Nita Gadgilwad
- Dr Varsha Ranganji
- Dr Vinodini Mehtaram

Important dates

Abstract Submission Start: July 15, 2020 Registration Start: Dec 15, 2020

Extended Date of Abstract Submission: Dec 1, 2020

Acceptance Notification: Dec 15, 2020 Standard Registration Deadline: Jan 10, 2021

Dr Smita Acharya, Convener NSFD-2021

Professor, Advanced Materials Research Laboratory, Department of Physics, RTMNU, Nagpur.

Mb No: 7720819520, Email Id: nsfd2021@gmail.com

DR. D. D. DEO MEMORIAL SCIENCE COLLEGE NAGPUR
PAYMENT VOUCHER

Voucher No.:

Date: 18.01.2021

A/C Head:

Amount: 20000/-

Rupees (In Words): Twenty Thousand only


Being: Amount paid to physics examination and
charitable Trust Nagpur

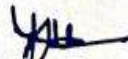
Cash / Cheque No.: 023668


Bank: BSNL 60202620251

Bill No.:

Bill Date:


Prepared By


Checked By


Principal
Dharamprasad B
Deo Memorial
Science College


Receivers Signature

Receipt No: 256 / 2-10 / 2021

PHYSICS PROMOTION AND CHARITABLE TRUST
{(REGISTRATION No.E1723 (N))}

RECEIPT

Received with thanks a sum of Rs 20,000/- (Rs Twenty thousand only) from Principal,
Dharampeth M P Deo Memorial Science College, Nagpur as a partial fund to organize
National seminar on Ferroelectrics and Dielectrics-2021. The amount paid By Cheque no.
023668 dtd 18/01/2021 towards Physics Promotion and Charitable Trust Nagpur


Smita Acharya
Treasurer



DHARAMPETH M. P. DEO MEMORIAL SCIENCE COLLEGE, NAGPUR

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The Principal and Management of the college always promotes participation of teacher in various research related activities. This year the entire expenditure of 20,000 (Twenty Thousand Rs. only) by cheque no 023668 dated 18/01/2021, for the teacher's registration fees in the National Seminar on Ferroelectric and Dielectrics, January10-13, 2021 Organized by Department of Physics, RTM Nagpur University Nagpur in association with Dharampeth M. P. Deo Memorial Science College, Nagpur, was borne by the management. List of teachers registered for the National Seminar is mentioned hereunder:

- 1) Dr. Akhilesh Peshwe
- 2) Dr. Archana Kulkarni
- 3) Dr. R. B. Lanjewar
- 4) Dr. P. T. Humane
- 5) Dr. Seema Ubale
- 6) Dr. Vidya Kathoke
- 7) Dr. Ranjana Kulat
- 8) Dr. Manju Deshpande
- 9) Dr. Prashant Ambekar
- 10) Dr. Nitin Gaikwad
- 11) Dr. Varsha Rangari
- 12) Dr. Vaishali P. Meshram
- 13) Dr. Shraddha Deshpande
- 14) Dr. Kirti Paturkar
- 15) Dr. Snehal Narale
- 16) Mrs. Ruma Kapre



Prof. Pitambar Humane
IQAC Co-ordinator

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



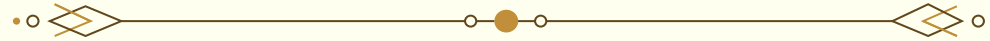
Dr. Akhilesh Peshwe
Principal

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

NSFD2021115



CERTIFICATE OF PARTICIPATION



This is to certify that,

Dr Archana Kulkarni

**Dharampeth M P Deo Memorial Science College,
Nagpur**

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

A blue ink signature of Prof. Smita Acharya is written over a horizontal line.

PROF. SMITA ACHARYA

Director, IQAC RTMNU
Convener, NSFD-2021

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DR. SUBHASH CHOUDHARY

Vice Chancellor
RTM Nagpur University,

NSFD2021115



CERTIFICATE OF PARTICIPATION

This is to certify that,

Dr Kirti Paturkar

**Dharampeth M P Deo Memorial Science College,
Nagpur**

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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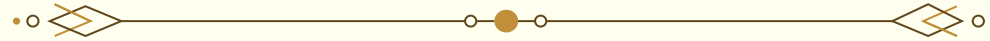
DR. SUBHASH CHOUDHARY

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NSFD2021115



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This is to certify that,

Dr R B Lanjewar

**Dharampeth M P Deo Memorial Science College,
Nagpur**

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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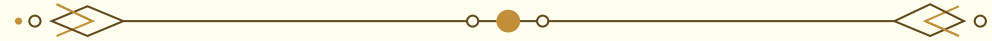
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RTM Nagpur University,

NSFD2021115



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This is to certify that,

Dr Manju Deshpande

**Dharampeth M P Deo Memorial Science College,
Nagpur**

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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This is to certify that,

Dr Nitin Gaikwad

**Dharampeth M P Deo Memorial Science College,
Nagpur**

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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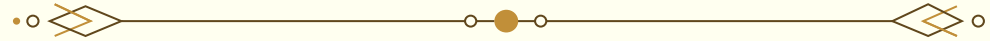
DR. SUBHASH CHOUDHARY

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RTM Nagpur University,

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This is to certify that,

Dr P. T. Humane

**Dharampeth M P Deo Memorial Science College,
Nagpur**

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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DR. SUBHASH CHOUDHARY

Vice Chancellor
RTM Nagpur University,



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This is to certify that,

Dr Prashant Ambekar
Dharampeth M P Deo Memorial Science College,
Nagpur

participated and presented paper of title "Charge transfer mechanism in KNbO₃ dispersed composites of monovalent alkali carbonate" in XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021), organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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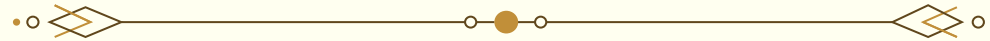
DR. SUBHASH CHOUDHARY

Vice Chancellor
RTM Nagpur University,

NSFD2021115



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This is to certify that,

Dr Ranjana Kulat
Dharampeth M P Deo Memorial Science College,
Nagpur

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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DR. SUBHASH CHOUDHARY

Vice Chancellor
RTM Nagpur University,

NSFD2021115



CERTIFICATE OF PARTICIPATION

This is to certify that,

Mrs. Ruma Kapre

**Dharampeth M P Deo Memorial Science College,
Nagpur**

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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This is to certify that,

Dr Seema Ubale

**Dharampeth M P Deo Memorial Science College,
Nagpur**

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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PROF. SMITA ACHARYA

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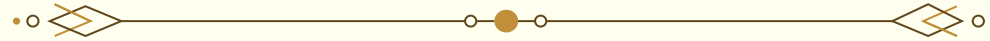
DR. SUBHASH CHOUDHARY

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This is to certify that,

Dr Shraddha Deshpande
Dharampeth M P Deo Memorial Science College,
Nagpur

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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This is to certify that,

Dr Snehal Narale

**Dharampeth M P Deo Memorial Science College,
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This is to certify that,

Dr Vaishali P. Meshram
Dharampeth M P Deo Memorial Science College,
Nagpur

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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DR. SUBHASH CHOUDHARY
Vice Chancellor
RTM Nagpur University,

NSFD2021115



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This is to certify that,

Dr Varsha Rangari

**Dharampeth M P Deo Memorial Science College,
Nagpur**

participated in **XXI National Seminar on Ferroelectrics and Dielectrics-2021 (NSFD-2021)**, organized by IQAC and Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University in collaboration with Dharampeth M P Deo Memorial Science College, Nagpur during 10-13 January 2021.

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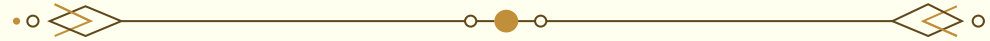
DR. SUBHASH CHOUDHARY

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This is to certify that,

Dr Vidya Kathoke

**Dharampeth M P Deo Memorial Science College,
Nagpur**

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