



DEPARTMENT OF PHYSICS
Govt. V.Y.T. PG Autonomous College, Durg,
(Chhattisgarh), India








Email : physics@govtsciencecollegedurg.ac.in
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**International Conference on Recent Trends in
Science and Engineering
(8 th - 10th February 2024)**

**Three-day international conference organized under the joint auspices of Physics Department of Science
College, Durg and I.I.T. Bhilai**

Under the joint aegis of Government Vishwanath Yadav Tamaskar Post Graduate Autonomous College, Durg and IIT Bhilai, the 3-day international conference will be inaugurated on 8 February 2024 at 10.30 am in Radhakrishnan Hall Autonomous Building, Durg. This international conference will be sponsored by PM-USHA, Seacoast and DST-FIST. Chief guest at the international conference, Prof. N.V. Ramana Rao will be Director, National Institute of Technology Raipur. In this program Professor M.A. Siddiqui Principal, Dr. K.V.R. Murthy, President, Luminescence Society of India, Program Coordinator Dr. Jagjeet Kaur Saluja, Dr. Sudhanva Patra IIT Bhilai, Dr. Vikas Dubey and all the professors of Physics Department, renowned scientists and professors from India and abroad, research students - Students will participate. According to convenor Dr. Jagjeet Kaur and secretary Dr. Abhishek Kumar Mishra, the key speakers in this conference will be Prof. from KwaZulu-Natal University, Durban, South Africa. Srikant B. Jonalagadda, Yulin University, China Dr. Santosh Kumar Verma, Central Department of Physics, Tribhuvan University, Kathmandu, Nepal Prof. Narayan Prasad Adhikari, University of Military Technology, Poland Dr. Marta Michalska Domanaska, Center for Energy Research and Development Obafemi Awolowo University Ile-Ife, Nigeria Dr. M.B. Latif, Prof. Rameshwar Adhikari from Tribhuvan University, Kathmandu, Nepal, Dr. Jelena Mitric from University of Belgrade, Dr. K.V.R. Murthy, President of MS University of Baroda, Luminescence Society of India, Prof. from RTM Nagpur University, Nagpur. S.J. Dhoble, Dr. Ankush Vij from Central University of Haryana, Dr. S.P. from North-Eastern Hill University, Shillong. Husband and Dr. Vikas Dubey, Senior Scientist from AMPRI Bhopal, Dr. Manoj Gupta, Prof. from Andhra Loyola College, Vijayawada Andhra Pradesh. M.C. Rao, Senior scientist Dr. Subrata Das from CSIR-NIIST Trivandrum, Dr. Namita Brahme and Dr. D.P. Bisen from Raipur. Along with this, there will also be oral and poster presentations for research students and the best poster will be awarded. According to Principal Professor M.A. Siddiqui, all the participants will get the latest information about science and technology from this conference. This conference will be organized in hybrid mode.

Dr. Marta Michlaska Domanaska	Military University of Technology Poland	
Dr. M.B. Latif	Centre for Energy Research & Development Obafemi Awolowo University Ile-Ife, Nigeria	
Dr. Jelena Mitrić	Faculty of Physical Chemistry, University of Belgrade -	
Dr. Ankush Vij	Central University Haryana	
Dr. S.P. Pati	North-Eastern Hill University, Shillong, India	
Dr. Manoj Gupta	Sr. Scientist AMPRI Bhopal	
Prof. M.C. Rao	Andhra Loyola College, Vijayawada Andhra Pradesh, India	

Prof S. B. Jonnalagadda	University of KwaZulu-Natal, Durban	
Prof. Narayan Prasad Adhikari	Central Department of Physics, Tribhuvan University, Kathmandu	
Prof. Rameshwar Adhikari	(RECAST), Tribhuvan University, Kathmandu	
Dr Santosh Kumar Verma	Yulin University China	
Prof. K V R Murthy	M S University of Baroda	
Prof. S.J. Dhoble	RTM Nagpur University Nagpur	

PATRONS

Prof Rajiv Prakash	Director, IIT Bhilai
Dr. M.A. Siddiqui	Principal, Govt .V.Y. T. PG. Auto. College, Durg

CONVENER

Dr. Jagjeet Kaur Saluja	Professor & Head, Physics, Govt .V.Y. T. PG. Auto. College, Durg
Dr. Sudhanwa Patra	Assistant Professor & Head, Physics, IIT Bhilai
Dr. Vikas Dubey	Associate Professor, NEHU Shillong

CO-CONVENER

Dr. R.S. Singh	Professor Physics, Govt .V.Y. T. PG. Auto. College, Durg
Dr. Anita Shukla	Assistant Professor Physics, Govt .V.Y. T. PG. Auto. College, Durg
Dr. Dhruv Pratap Singh	Assistant Professor Physics, IIT Bhilai

ORGANIZING SECRETARY

Dr. Abhishek Kumar Misra	Assistant Professor, Physics, Govt .V.Y. T. PG. Auto. College, Durg
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CO-ORGANIZING SECRETARY

Dr. Siteshwari Chandrakar	Assistant Professor, Physics, Govt .V.Y. T. PG. Auto. College, Durg
Dr. Kusumanjali Deshmukh	Assistant Professor, Physics, Govt .V.Y. T. PG. Auto. College, Durg

ADVISORY BOARD

Dr. Anjali Oudhia	Dr. Meera Gupta	Dr. Ravi Shrivastava
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Dr. D.P. Bisen	Dr. Smriti Agrawal	Dr. S.K. Patel

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Dr. Anil Kumar	HOD Biotechnology
Dr. Padmavati	HOD Maths
Dr. Pragya Kulkarni	HOD Microbiology
Dr. Sunitha B Mathew	Assistant Professor, Chemistry
Dr. Sanju Sinha	Assistant Professor, Zoology

LOCAL ORGANIZING COMMITTEE

Dr. Mamta Parganiha	Guest Lecturer Physics
Shri . Neeraj Verma	Guest Lecturer Physics
Shri Bhupendra Das	Guest Lecturer Electronics
Shri Neeraj Yadav	Guest Lecturer Electronics
Smt. Payal Namdeo	Guest Lecturer Physics

CONFERENCE OBJECTIVE

The conference on recent trends in science and engineering aims to bring together leading academic scientists, professional from industries and research scholars to exchange and share their experiences in basic science and technology as well as emerging trends in global technological advancement. This conference allows a interdisciplinary forum for students, research scholars and academicians for fruitful discussion and navigate the future research for better mankind.

THEME AND SUBTHEME

- Luminescence and its applications
- Environment Science and Technology
- Materials For Display, Forensic And Biomedical Application.
- Emerging Trends In The Field Of Science, Computer Technologies And Its Application.
- Innovations in Civil Engineering
- Current And Disruptive Technologies In Mechanical Engineering As Per Current Demand In Industries And Service Sectors
- Recent Trends And New Technologies In Electrical And Electronics Engineering
- Current Trends In Electronics And Telecommunication Engineering
- Emerging Trends In Mathematical Sciences And Technology
- Emerging Trends In Environmental Chemistry For Sustainable Development And Technology

OVERSEAS INVITED SPEAKERS

Dr. SB Jonnalagadda., University of KwaZulu-Natal, SA
Dr. M B Latif, Awolowo University Ile-Ife, Nigeria
Prof. Atef - El- Taher, Al-Azhar University, Egypt
Dr. Jelena, Mitric, University of Belgrade, Serbia
Dr. Marta Michlaska Domanaska, Military University of Technology Poland

INDIAN INVITED SPEAKERS

Dr. K V R Murthy, M S University of Baroda
Dr. Subrata Das, CSIR-NIIST, Thrivendrum
Dr. Manoj Gupta, AMPRI Bhopal
Dr. S J Dhoble, RTM University Nagpur



International Conference

On

Recent Trends in Science and Engineering

8th - 10th February 2024

Conveners

Dr. Jagjeet Kaur Saluja

Dr. Sudhanwa Patra

Dr. Vikas Dubey

Co-Convener

Dr. R.S. Singh

Dr. Anita Shukla

Dr. Dhruv Pratap Singh

Organizing Secretary

Dr. Abhishek Kumar Misra

Co-Organizing Secretary

Dr. Siteshwari Chandrakar

Dr. Kusumanjali Deshmukh

Organized By

Department of Physics
GOVT. V.Y.T. PG. AUTONOMOUS COLLEGE,
DURG, CHHATTISGARH
IN ASSOCIATION WITH
Physics Department, IIT BHILAI
(HYBRID MODE)

ABOUT GOVT. V.Y.T. PG. AUTO. COLLEGE,DURG

Government Vishwanath Yadav Tamaskar Post-Graduate Autonomous College, Durg, Chhattisgarh, India is a leading higher education institution in Chhattisgarh. It is affiliated to Hemchand Yadav University, Durg. The college has been conferred with the status of autonomy by UGC in 1989. The college was accredited with a grade 'A+' by NAAC in the fourth cycle and has been recognized by UGC as college with potential for excellence (CPE), receiving the grant under III phase of the scheme. Five departments from faculty of science and one from social science have been identified by UGC under CPE scheme as highly rated departments. Institute has been shortlisted and recognized under DBT star college scheme by the Department of Biotechnology (DBT) Govt. of India. Under this scheme, 6 departments from the faculty of science have been selected for providing financial support. The department of Physics & Chemistry recognized under the funds for improving science and technology infrastructure (FIST) scheme by the Department of Science and Technology, Govt. of India.

ABOUT THE DEPARTMENT OF PHYSICS

The department was established in 1958, PG course was started in 1965. Very highly distinguished and learned professors were among the faculty. The department is actively engaged in research and having a number of sponsored UGC/CCOST/DST projects. The areas of research include Luminescent materials, Nanomaterials, Organic LED's & Photovoltaic Cell. Photonics, Electronics, Biomedical Application of luminescent materials and Radiation physics. Department of Physics is star performing department in the college and received DST-FIST grant recently for research work.

ABOUT THE IIT Bhilai & DEPARTMENT OF PHYSICS,

Indian Institute of Technology (IIT) Bhilai was established in the state of Chhattisgarh by the Ministry of Education in the year 2016. IIT Bhilai is presently housed in its permanent campus at Kutelabhata, Bhilai, Chhattisgarh. IIT Bhilai offers BTech, MTech, MSc and Doctoral programs in various departments. The Institute made its modest start with introduction of BTech program in August 2016. IIT Bhilai has established a 3-D Printing Lab that constitutes an integral part of 3-D Modeling and Design course. The Department of Physics, Indian Institute of Technology (IIT) Bhilai, came into existence along with the establishment of the IIT Bhilai in 2016 and has already made its mark at the national and international level with several funded research projects, national-level awards, research collaborations across the country and globe.

ADDRESS FOR CORRESPONDENCE

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Contact No. Number 07879586493

ELIGIBILITY

Academicians, Research Scholars. UG, PG and R&D Institutes.

REGISTRATION FEE

Registration Fees :

Students :	Rs.1000/-
Research Scholar:	Rs. 1500/-
Faculty:	Rs.2000/-

All the offline payment should made by DD/CASH.
All the online payment should made by NEFT

Account Number: 72900100001599

IFSC Code – BARB0DBMDUR

IMPORTANT DATES

1. Last Date of Registration : 31st January 2024
2. Abstract Submission : 31st January 2024
3. Confirmation of participation : 5th February 2024

ONLINE REGISTRATION LINK

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VENUE OF CONFERENCE

8 and 10 February 2024

Dr. S Radhakrisnan Hall, Autonomous Building
Govt. V.Y.T. PG. Autonomous College, Durg,
Chhattisgarh, India, 491001

9 February 2024

Physics Department , IIT Bhilai



International Conference On Recent Trends in Science and Engineering

8th - 10th February 2024

Sponsored by PM-USHA , DST, CCOST & IIT Bhilai

OFFLINE REGISTRATION FORM

Name (Block Letter) :

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Accommodation Required: Yes/No

Highest Academic Qualification :

Specialization :

Experience :

1. Teaching :

2. Research :

3. Industrial :

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Date :

Signature Of The Applicant



Dear Press & Print Media

Department Of Physics

Govt. VYT PG Autonomous College, Durg, Chhattisgarh, India

Solicit

Your Esteemed Presence

In The Inaugural Function

Of

**The International Conference On
Recent Trends In Science And Engineering**

Sponsored By PM USHA

&

In Association With

Department of Physics,

Indian Institute Of Technology, Bhilai, India

On Thursday,

8th February 2024, 10:30 AM

Chief Guest

Dr. N.V. Ramana Rao

Director, NIT Raipur

Guest of Honour

Dr. KVR Murthy

President, LSI, India

Plenary Talk By:

Dr Sreekantha B.Jonnalagadda

Senior Professor, University of KwaZulu-Natal, SA

Dr Abhishek Kumar Misra
Organizing Secretary

Dr Jagjeet Kaur Saluja
Dr Sudhanwa Patra
Dr Vikas Dubey
Convenor

Dr Rajiv Prakash
Director IIT and Patron
Dr M A Siddiqui
Principal and Patron

Conference Schedule

VENUE:

8, 10 February 2024: Dr S Radhakrishnan Hall, Govt. V.Y.T.PG. Auto. College Durg

9 February 2024: IIT Bhilai

8 February 2024 (Day-1)

9:00 -10.30 AM

Registration in front of Dr S Radhakrishnan Hall
Govt. VYT PG Auto. College Durg

10:30 -11.30 AM

INAUGURATION CEREMONY Dr S Radhakrishnan Hall

Lighting of the lamp

Welcome of Dignitaries on the dais

Welcome Address by Convener, Dr. Jagjeet Kaur Saluja

Address by Guest of Honor

Presidential address: Dr. M A Siddiqui Patron & Principal, Govt. VYT PG Auto.
College Durg

Address by Chief Guest: Prof. N.V. Ramana Rao, Honorable Director, NIT
Raipur

Release of book of abstracts by chief guest and other dignitaries on the dias

Presentation of mementos

Vote of thanks by Convener: Dr. Vikas Dubey

11.30 -12.15 PM

High Tea Followed by Photo Session

Technical
Session-1

Chairperson: Prof. S.J. Dhoble & Prof. Namita Brahme

12:15-1:00 PM

Plenary Talk : Dr. Prof Sreekantha B. Jonnalagadda (Novel Nanocomposites
and Mixed Oxide material as Catalysts and other applications)

01:00 – 01:30 PM	Keynote Address by Dr. K V R Murthy, M S University of Baroda President LSI (Natural Luminescence in Nature)	
01:30 – 02:00 PM	Invited Talk by Dr. Sanjib Banerjee IIT Bhilai	
02:00 – 2:45 PM	Lunch , Govt. VYT PG Auto. College Durg	
Technical Session-2	Chairperson: Dr. Mahavir Sharma & Dr. Sesha Vempati	Chairperson: Dr. R.K. Mishra & Dr. N. Kumarswamy
2:45PM - 3:15 PM	Invited Talk by Dr. Marta Michlaska Domanaska, Military University of Technology Poland Online Mode	Invited Technical Talk by Dr. Rekha Garg Solanki Oral Presentation 01-05
3:15 – 3:45 PM	Invited Talk by Dr. B. Latif (Thermoluminescence Dosimetry: Yesterday, Today and Tomorrow), Nigeria Online Mode	Invited Talk by Dr. S.P. Pati (Brain inspired computing by using proton as neurotransmitter) Online Mode
3:45 – 4:15 PM	Invited Talk by Prof. S.J. Dhoble (Futuristic Approach of green synthesized metal nanoparticles for multidisciplinary applications)	Invited Talk by Dr. Jelena Mitrić (Plasmon-Phonon interaction and Surface Optical Mode in Cd 1-x Fe x Te 1-y Se y Single Crystals) Online
4.15-4.30 PM	Tea Break	
Technical Session-3	Chairperson: Dr. Jagjeet Kaur Saluja and Dr. Vikas Dubey	Chairperson : Dr. Sudhanwa Patra & Dr. Sabyasachi Ghosh
4:30 – 5:00 PM	Invited Talk by Dr. Dhruv P Singh (Design and applications of microrobots)	Invited Talk by Dr. Manoj Gupta (Flexible Piezoelectric Nanogenerator for Harvesting Mechanical Energy: A Next Generation Nano-Devices), Sr. Scientist AMPRI Bhopal (Online)
5:00 – 5:30 PM	Invited Talk by Prof. Namita Brahme, Pt. RSU Raipur	Invited Talk by Dr. Ankush Vij (Effect of rare earth ions on the electronic structure and luminescence of wide band gap nanophosphors), Central University Haryana (Online)
5:30 – 6:00 PM	Invited Talk by Dr. Mahavir Sharma (Virial equilibrium for stars and galaxies)	Online Oral Presentations
6:00 – 6:30 PM	Invited Technical Talk by Mr. B. Aditya 5 - Pan Universal PVT LTD	ITT by Dr. Shalu Atri , Comenius university Bratislava (Online)Oral
6:30 – 7:00 PM	Oral Presentation 06-15	

9th February 2024 (Day-2) Venue - Department of Physics Indian Institute of Technology Bhilai

9:00 AM	Departure for IIT Bhilai from Govt. V.Y.T.PG. Auto. College Durg (Mithila Lecture Hall Complex IIT Bhilai Hall-106)
Technical Session-4	Chair Person: Prof. KVR Murthy, President LSI & Dr. Praveen Kumar
9.30 – 10:00 AM	Invited Talk by Prof. Rameshwar Adhikari , Nepal
10:00 – 10.30 AM	Invited Talk by Dr. Khaja Mohiddin, (Virtual Assistant for Accessible and Natural Sign Language (VAANI) Dean BIT Raipur
10.30-11.30 AM	Oral Presentation 16-20
11.30-11.45 AM	Tea Break
TechnicalSession-5	Chair Person: Dr. Mahavir Sharma & Dr. R.S. Singh
11:45 – 12:00 PM	Invited Technical Talk by Dr. N. Kumarswamy (ISBM University)
12.00 -12.30 PM	Invited Talk by Dr. Sesha Vempati (What photons do to the material?)
12:30 – 2:00 PM	Oral Presentation 21-30
2:00 – 2:30 PM	Lunch (Mess Block) , IIT Bhilai Followed by Poster Session
Technical Session-6	Chair Person: Dr. Anita Shukla and Dr. Kusumanjali Deshmukh
2:30 – 3:00 PM	Invited Talk by Dr. Sabyasachi Ghosh (Physics of Quantum Hall Effect)
3:00 – 3:30 PM	Invited Talk by Dr. Padmavati Shrivastava (Navigation the Blockchain Frontier: Ethics, Sustainability and Case Studies)
3.30-4.00 PM	Invited Talk by Dr. Narayan Prasad Adhikari Nepal
4.00-4.15 PM	Tea Break
Technical Session-7	Chair Person: Dr. Sitieshwari Chandrakar and Dr. D.P. Bisen
4.15-4.45 PM	Invited Talk by Dr. R.K. Mishra, Principal BIT Raipur
4.45PM-5.15 PM	Invited Talk by Dr. Omprakash Sahu,SSIPMT Raipur

10 February 2024 (Day-3)

Venue: Dr S Radhakrishnan Hall, Govt. V.Y.T.PG. Auto. College Durg

Technical Session-8	Chair Person: Dr. Abhishek Kumar Misra & Dr. Ratnesh Tiwari	Dr. Padmavati Shrivastava
10:30-11:00 AM	Invited Talk by Dr. Sudhanwa Patra (CP-violation study with Neutrino Oscillation Experiments)	Invited Talk by Dr. Subrata Das Sr. Scientist, (CSIR-NIIST) Thiruvanthapuram (Online)
11:00-11:30 AM	Invited Talk by Dr. Vikas Dubey (Synthesis and Characterization of Eu ³⁺ doped Phosphors)	
11.30-11.45 AM	Invited Talk by Dr. Praveen Kumar (Structured Light)	
11.45 -12.15 PM	Invited Talk by Prof. M.C. Rao (Online)	
12.15 -2.00 PM	ITT by Dr. Neha Dubey (Phosphors for Forensic and Biomedical application) Oral Presentations 31-40	
2.00-3.00 PM	Lunch	
3:00 PM Onwards	Valedictory Session	
4:30 PM Onwards	Certificate Distribution	



DEPARTMENT OF PHYSICS

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First Day of International Conference on Recent Trends in Science and Engineering (8 February 2024)

Positive development of the country is possible with new technology, three-day international conference inaugurated in Department of Physics Science College, Durg, and I.I.T. Bhilai

Under the joint aegis of Government Vishwanath Yadav Tamaskar Post Graduate Autonomous College, Durg and IIT Bhilai, the 3-day international conference Recent Trends in Science and Engineering started with the inauguration of Saraswati Vandana, state song and lighting of the island. All the guests were welcomed with floral tributes. Chief guest at the international conference, Prof. N.V. Ramana Rao, Director, National Institute of Technology Raipur, while telling about the latest developments related to science and engineering, said that positive development of the country can be possible with the help of latest technology in science and engineering. Expressing happiness over organizing an international conference on the subject of science and engineering in Chhattisgarh, he expressed happiness at the colleges and IITs. Praising Bhilai's contribution in the field of research, he discussed in detail about robotics and artificial intelligence. Its former coordinator, Dr. Jagjit Kaur Saluja, threw light on how the outline of this program and the gathering will be useful for research students and professors associated with Anuradhaans. He said that there will be 42 oral presentations and 31 poster presentations in this conference. LSI Chairman Dr. K.V. R. Murthy said through this conference that we, along with scholars and scientists, have the prime responsibility to ensure that the world is equipped with science and engineering for the coming generations.

In-charge Principal Dr. Anupama Asthana while welcoming all the guests in her address said that this college has always been ready for research and innovation towards providing quality higher education. As our planet is changing and facing various adversities, this conference will bring meaningful results towards sustainable development in science and engineering. The program was conducted by Dr. Kusumanjali Deshmukh and vote of thanks was done by Dr. Vikas Dubey.

In the first technical session, Prof. from University of KwaZulu-Natal, Durban, South Africa. Srikant B. Jonalagadda (Plenary Talk) provided the latest information to the researchers about the catalytic use of nanocomposites and also discussed in detail about green synthesis. A detailed presentation on the uses of natural

luminescence in nature was given by Dr. K.V.R. Murthy, President, Luminescence Society of India. Dr. Sanjib Banerjee of IIT Bhilai told about the contribution of polymer materials in the field of engineering and biomedical.

In the second technical session, Dr. Marta Michalska Domanaska from the University of Military Technology, Poland, explained about anodizing of iron and aluminum alloys. Dr. M.B. from the Center for Energy Research and Development Obafemi Awolowo University Ile-Ife, Nigeria. Latif provided information regarding thermoluminescence dosimetry and gave details of the changes coming in the field of science and engineering with its use. Dr. S.P. from North-Eastern Hill University, Shillong. The husband lectured on computing using protons as neurotransmitters in the brain. Dr. Jelena Mintrić from the University of Belgrade described the plasmon-phonon interaction and the properties of optical surface crystals and discussed the utility of gold nanoparticles in biosynthesis. Prof. from RTM Nagpur University Nagpur. S.J. Dhoble discussed the preparation of silver nanoparticles from plants and explained the preparation of copper nanoparticles from vine plants.

In the third technical session, I.I.T. Dr. Dhruv Pratap Singh of Bhilai presented his lecture on the structure and usefulness of microrobots. He described microrobots as useful for chemical sensing and bacterial sensing. Dr. Manoj Gupta, senior scientist from AMPRI Bhopal, presented an informative lecture on nanodevices. He explained the structure of graphene and zinc oxide. Dr. Akush Vij from Central University of Haryana explained the usefulness and properties of nanophosphor. I.I.T. Dr. Mahav from Bhilai.









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Second Day of International Conference on Recent Trends in Science and Engineering (9 February 2024)

Usefulness of natural fiber in ketosan and nano tubes

Introduction of Prof. Rameshwar Adhikari from Tribhuvan University, Kathmandu, Nepal by Dr. Dhruv Pratap Singh of IIT Bhilai in the fourth technical session of the Recent Trends in Science and Engineering International Conference under the joint aegis of Government Vishwanath Yadav Tamaskar Post Graduate Autonomous College, Durg and IIT Bhilai. given. Prof. Adhikari explained microscopic methods, he provided comprehensive information on Ketosan and Nano Tube in the origin and utility of natural fibres. Dr. Khwaja Mohideen from BIT Raipur explained the contribution of Artificial Intelligence and Machine Learning in sign language for deaf and mute persons and provided interesting and informative information on how this sign language can be useful. In oral presentation, Nachiket Joshi, Narayan Prasad, Rajroop Banerjee presented their research work. In the fifth session of the conference, Dr. N. Kumaraswamy from ISBM University discussed the use of luminescent materials in the latest technology. He explained about the use of nano particles in our daily life and how we all use nano particles every day. Dr. Sesha Vempati from IIT Bhilai told about perovskite solar cells. In the fifth session of the conference, Dr. N. Kumaraswamy from ISBM University discussed the use of luminescent materials in the latest technology. He told about the use of nano particles in our daily life and how we all use nano particles every day. Dr. Sesha Vempati from IIT Bhilai told about perovskite solar cells. He explained the fluorescent Raman effect by giving the example of zinc oxide. Researchers Suvendu Kumar Panda, Sapna Soni, Kanhu Andiya, Ajay Narayan Sahu, Nandita Prasanna and Lakshmi Narayan Sahu, Thandar Zah Win from Suleman, Myanmar, Smita presented their research work. Dr. Savyasachi Ghosh from IIT Bhilai explained the Quantum Hall Effect. Dr. Padmavati Srivastava from Rungta College Bhilai explained Blockchain Frontiers by giving an example. He described Blockchain as a medium of Internet of Trust. Dr. Narayan Prasad Adhikari from Tribhuvan University, Kathmandu, Nepal explained the Thermoelectric Effect. And explained the parameters related to it and also resolved the doubts of the research students. Dr. RK Mishra from BIT Raipur explained how a strong material can be made by combining local materials. Today's technical sessions were

conducted by Dr. Dhruv Pratap Singh, Dr. Praveen Kumar, Prof. KVR Murthy, Prof. Ramashankar Singh, Dr. Anita Shukla, Dr. Kusumanjali Deshmukh, Dr. Vikas Dubey and Dr. Siteshwari Chandrakar.

Poster presentations were made by the researchers, out of which the researchers would be given first, second and third prizes respectively. All the academic and non-academic, research scholars and M.Sc. second and fourth semester students of Physics and IIT Bhilai contributed in making the program successful. Professors, researchers and students from various departments were present during the program. The entire program was conducted in an interesting manner by Abhigya, a research student from IIT Bhilai.







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Third Day of International Conference on Recent Trends in Science and Engineering (10February 2024)

Opportunity to learn and understand from science and technological innovations

Strong efforts towards reviving the bright traditions of science

Addressing the concluding session of the three-day program of Recent Trends in Science and Engineering International Conference under the joint aegis of Government Vishwanath Yadav Tamaskar Post Graduate Autonomous College, Durg and IIT Bhilai, Chief Guest Professor Dr. Narayan Prasad Adhikari from Tribhuvan University, Kathmandu, Nepal said that today In this environment, most of the problems can be solved only through technology. Through international conferences, youth get various opportunities to learn and understand the innovations related to science and technology. I am confident that in this 3-day international conference, young scientists and researchers will get the experience and benefit from the knowledge of senior scientists. Prof. Rameshwar Adhikari from Tribhuvan University, Kathmandu, Nepal, who was present as guest of honor in the concluding session, praised the success of this international conference in his address. From such events, researchers get very latest information and it will prove useful for the researchers to move forward in future. It is very important to organize such events from time to time to make the students aware of the latest technology. Researchers should keep striving towards making human life simple and easy with new technology.

Principal Dr. M.A. Siddiqui inspired the students to work hard and move forward, he said that if the researchers in this conference learn new technology and incorporate it in their research, then the significance of this conference will be proved and the efforts of the researchers will be taken to take the nation to the pinnacle. will succeed. In his address, Dr. Siddiqui said that such events are organized by the college to enable science students and science researchers to advance their education and research in a quality manner. The researchers are empowered to revive the bright traditions of science. Efforts should be made, he stressed the need for skills with the changing environment.

Conference coordinator Dr. Vikas Dubey provided summary information about the conference. In this conference, researchers from different countries like Nepal, China, South Africa, Poland, Nigeria, Myanmar and different provinces of India discussed their research work. The objective of this conference was to make

researchers aware of new systems and new research, so that while doing research, problems and possibilities of new technology could be brainstormed to solve them.

Dr. Siteshwari Chandrakar announced the names of the students who performed best in oral and poster presentations. In poster presentation, Ashutosh Patel stood third, Aditi Banjare stood second and N. P. Chaitanya from IT Warangal. In oral presentation, Shireen got third place, Neeraj Verma got second place and Rajrupa Banerjee got first place. Consolation prizes were given to Sapna Soni and Chandrashekhar Verma. Awards and certificates were given to all the outstanding researchers by the guests, principal and coordinators of the conference. The program was efficiently conducted by Dr. Kusumanjali Deshmukh and the vote of thanks was given by Dr. Sudhanva Patra. In their feedback, the researchers described this memorable conference as a medium to get more and more latest information. Thanked the college and IIT Bhilai for their prompt cooperation. Dr. Vikas Dubey, in his presentation, explained the use of phosphor material in biomedical and drug delivery applications. With the help of phosphor, UV energy can be converted into visible light. Dr. Vikas Dubey encouraged the students to choose their career in research. He guided the students on what will be in demand in the future and what is in demand at present. Along with this, students were inspired to emphasize on innovative thinking. This technical session was conducted by Dr. Jagjeet Kaur Saluja and Dr. Abhishek Kumar Mishra. Head of the Department, Dr. Jagjeet Kaur Saluja thanked the Organizing Committee and sent best wishes to the students for success in their future. Dr. Jagjit Kaur Saluja Dr. R. S. Singh Dr. Anita Shukla, Dr. Siteshwari Chandrakar, Dr. Abhishek Kumar Mishra, Dr. Kusumanjali Deshmukh, Dr. Vikas Dubey, Dr. Mamta Parganiha, Bhupendra Das, Neeraj Yadav, Payal Namdev, Khushboo Sahu, Mr. Neeraj Verma, Mr. Tirath Sinha, I.I. T. Bhilai Dr. Sudhanva Patra of, Dr. Dhruvapratap Singh, all academic and non-academic, research scholars M.Sc. Students of second and fourth semesters contributed in making the program successful. During the program, Dr. Anupama Asthana, Dr. Anil Kumar, Dr. Ajay Kumar Singh, Dr. Harjinder Singh Saluja, Dr. Padmavati, Dr. A. Khan, Dr. Abhinesh Surana, Dr. Shakeel Hussain, Dr. Sanju Sinha, Dr. Alka Mishra, Dr. Preeti Chandrakar Professors, researchers and students of various departments were present. More than 200 researchers participated in this conference, certificates were distributed to all the present researchers. All the researchers and scientists praised this conference and congratulated the organizing team.







रोबोटिक्स कृत्रिम बुद्धिमत्ता पर हुई चर्चा

कार्नर
न्यूज

शासकीय विश्वनाथ यादव
तामस्कर स्नातकोत्तर स्वशासी
महाविद्यालय, दुर्ग एवं
आईआईटी भिलाई के संयुक्त
तत्वावधान में 3 दिवसीय
अंतरराष्ट्रीय सम्मेलन रिसेंट
ट्रेड्स इन साइंस एंड
इंजीनियरिंग का उद्घाटन
सरस्वती वंदना, राज्य गीत एवं
दीप प्रज्ज्वलन कर किया
गया।

विज्ञान एवं यांत्रिकी में नवीनतम टेक्नोलॉजी के सहयोग से देश का सकारात्मक विकास संभव



भिलाई। अंतरराष्ट्रीय सम्मेलन में मुख्य अतिथि प्रो. एन वी रमणा राव निदेशक, राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर ने अपने उद्बोधन में विज्ञान एवं यांत्रिकी से संबंधित नवीनतम घटनाओं के बारे में बताते हुए कहा कि विज्ञान एवं यांत्रिकी में नवीनतम टेक्नोलॉजी के सहयोग से देश का सकारात्मक विकास संभव हो सकता है। उन्होंने विज्ञान एवं यांत्रिकी विषय पर छत्तीसगढ़ में अंतरराष्ट्रीय सम्मेलन आयोजित करने पर प्रसन्नता व्यक्त करते हुए महाविद्यालय एवं आई.आई.टी. भिलाई के शोध के क्षेत्र में योगदान की सराहना की। संयोजक डॉ. जगजीत कौर सलुजा ने इस कार्यक्रम की रूपरेखा एवं सम्मेलन किस प्रकार शोध विद्यार्थियों एवं अनुसंधानों से जुड़े प्राध्यापकों के लिए उपयोगी होगा, इस प्रकाश डाला। उन्होंने कहा कि इस सम्मेलन में 42 मौखिक प्रस्तुतिकरण तथा 31 पोस्टर प्रस्तुतिकरण होंगे। एलएसआई अध्यक्ष डॉ. के. व्ही. आर. मूर्ति ने इस सम्मेलन के माध्यम से कहा कि हम विद्वानों और वैज्ञानिकों के साथ-साथ यह सुनिश्चित करने की प्रमुख जिम्मेदारी है कि दुनिया आने वाली पीढ़ियों के लिए विज्ञान एवं इंजीनियरिंग से सुसज्जित हो।

बायोमैडिकल के क्षेत्र में योगदान के विषय में बताया

द्वितीय टेक्निकल सत्र में सैन्य प्रौद्योगिकी विश्वविद्यालय पोलैंड से डॉ. मार्त मिचलास्का डोमनस्का ने रोसा एवं एरचुमिनियम के मिश्रण के एनोडॉजिंग के बारे में बताया। साथ ही उनके विशेषज्ञों ने अपने विचार रखे। तृतीय टेक्निकल सत्र में आईआईटी भिलाई डॉ. ध्रुव प्रताप सिंह ने माइक्रोरोबोट्स की संरचना एवं उपयोगिता पर अपना व्याख्यान प्रस्तुत करते हुए माइक्रोरोबोट्स की रसायनिक संरचना तथा जीवाणु संसिग के लिए उपयोगी बताया। इसके साथ विभिन्न राज्यों से सम्मिलित शोधार्थियों ने अपने शोध पत्र पत्र प्रस्तुत किए। विभिन्न सत्रों को प्रो. एस.जे. बोबले, प्रो. नारायण प्रसाद अधिकारी, डॉ. महावीर शर्मा, डॉ. आर. के. मिश्रा, डॉ. शोभा वेमपति, डॉ. जगजीत कौर सलुजा, डॉ. विकास दुबे, डॉ. सुधाका पात्र, डॉ. साय्यासाची घोष, डॉ. कुसुमजली देशमुख द्वारा सफलतापूर्वक संचालन किया गया।



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रायपुर, 9 फरवरी 2024, शुक्रवार

प्रदेश

छत्तीसगढ़

विज्ञान व यांत्रिकी में नवीनतम टेक्नोलॉजी के सहयोग से देश का सकारात्मक विकास संभव-प्रो. राव

'छत्तीसगढ़' संवाददाता

दुर्ग, 9 फरवरी। शासकीय विश्वनाथ यादव तामस्कर स्नातकोत्तर स्वशासी महाविद्यालय, दुर्ग एवं आईआईटी भिलाई के संयुक्त तत्वावधान में 3 दिवसीय अंतरराष्ट्रीय सम्मेलन रिसेंट ट्रेड्स इन साइंस एंड इंजीनियरिंग (विज्ञान और इंजीनियरिंग में हालिया रुझान) का उद्घाटन सरस्वती वंदना, राज्य गीत एवं दीप प्रज्ज्वलन के साथ प्रारंभ हुआ।

सभी अतिथियों का स्वागत पुष्प भेंट द्वारा किया गया। अंतरराष्ट्रीय सम्मेलन में मुख्य अतिथि प्रो. एन.वी. रमणा राव निदेशक, राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर ने अपने उद्बोधन में विज्ञान एवं यांत्रिकी से संबंधित नवीनतम घटनाओं के बारे में बताते हुए कहा कि विज्ञान एवं यांत्रिकी में नवीनतम टेक्नोलॉजी के सहयोग से देश का सकारात्मक विकास संभव हो सकता है। उन्होंने विज्ञान एवं यांत्रिकी विषय पर छत्तीसगढ़ में अंतरराष्ट्रीय सम्मेलन आयोजित करने पर प्रसन्नता व्यक्त करते हुए महाविद्यालय एवं आई.आई.टी. भिलाई के शोध के क्षेत्र में योगदान की प्रशंसा की। उन्होंने रोबोटिक्स कृत्रिम बुद्धिमत्ता के बारे में विस्तारपूर्वक चर्चा की। इसके पूर्व संयोजक डॉ. जगजीत कौर सलुजा ने इस कार्यक्रम की रूपरेखा एवं सम्मेलन किस प्रकार शोध विद्यार्थियों एवं अनुसंधानों से जुड़े प्राध्यापकों के लिए उपयोगी होगा, इस प्रकाश डाला।



उन्होंने कहा कि इस सम्मेलन में 42 मौखिक प्रस्तुतिकरण तथा 31 पोस्टर प्रस्तुतिकरण होंगे। एल.एस.आई. अध्यक्ष डॉ. के. व्ही. आर. मूर्ति ने इस सम्मेलन के माध्यम से कहा कि हम विद्वानों और वैज्ञानिकों के साथ-साथ यह सुनिश्चित करने की प्रमुख जिम्मेदारी है कि दुनिया आने वाली पीढ़ियों के लिए विज्ञान एवं इंजीनियरिंग से सुसज्जित हो।

प्रभारी प्राचार्य डॉ. अनुपमा अस्थाना ने अपने उद्बोधन में सभी अतिथियों का स्वागत करते हुए कहा कि यह महाविद्यालय सदैव गुणवत्तापूर्ण उच्चशिक्षा प्रदान करने की दिशा में अनुसंधान एवं नवाचार के लिए तत्पर रहा है। बदलते समय में हमारा प्रहर्ष विभिन्न प्रतिकूलताओं का सामना कर रहा है तो इस सम्मेलन से विज्ञान एवं इंजीनियरिंग में सतत विकास की दिशा में सार्थक परिणाम आएंगे। कार्यक्रम का संचालन डॉ. कुसुमजली देशमुख एवं आभार प्रदर्शन डॉ. विकास दुबे द्वारा किया गया।

प्रथम टेक्निकल सत्र में सैन्य प्रौद्योगिकी विश्वविद्यालय, डरबन दक्षिण अफ्रीका से प्रो. श्रीकांत बी. जोनालगाडु ने 'प्लेनरी टॉक' नैनोकम्पोजिट्स का उर्वरक उपयोग के बारे में शोधार्थियों को नवीनतम जानकारी प्रदान की तथा साथ ही साथ ग्रीन सेंसिंस के बारे में विस्तारपूर्वक चर्चा की। डॉ. के. व्ही. आर. मूर्ति अध्यक्ष, ल्यूमिनिसेंस सोसायटी ऑफ इंडिया द्वारा प्रकृत में प्राकृतिक ल्यूमिनिसेंस के उपयोग के उपर विस्तार से प्रस्तुतिकरण किया गया। आईआईटी

तीन दिवसीय
अंतरराष्ट्रीय सम्मेलन

भिलाई के डॉ. संजीव बैनर्जी ने पालीमर मटेरियल के इंजीनियरिंग एवं बायोमैडिकल के क्षेत्र में योगदान के विषय में बताया।

द्वितीय टेक्निकल सत्र में सैन्य प्रौद्योगिकी विश्वविद्यालय पोलैंड से डॉ. मार्त मिचलास्का। डॉ. मातास्का ने रोसा एवं एरचुमिनियम के मिश्रण के एनोडॉजिंग के बारे में बताया। सेंटर फॉर एनर्जी रिसर्च एंड डेवलपमेंट ओबाफेमी ओबोलोबो यूनिवर्सिटी इले-सर्फे, नाइजीरिया से डॉ. एमबी लीफा थमोल्यूमिनिसेंस डोजीमेट्री के संदर्भ में जानकारी प्रदान की तथा इसके उपयोग से विज्ञान एवं इंजीनियरिंग के क्षेत्र में आने वाले परिवर्तनों का विवरण दिया। नॉर्थ ईस्टर्न हिल यूनिवर्सिटी, शिलॉंग से डॉ. एसपी पति

ने मलिक में न्यूट्रॉनसमीटर के रूप में प्रोटॉन का उपयोग करके कंप्यूटिंग विषय में व्याख्यान दिया। बेलारुड विश्वविद्यालय से डॉ. जेलेना मित्रिक ने प्लास्मिन-फोनान इंटरैक्शन तथा प्रकाशिय सतह क्रिस्टल के गुणधर्मों को बताया तथा गोल्डनैनोकोणों की बायोसंसेंसिंस की उपयोगिता के बारे में चर्चा की। आरटीएम नागपुर विश्वविद्यालय नागपुर से प्रो. एस.जे. बोबले ने वनस्पति से चांदी के नैनोकोणों को बनाने की चर्चा की और बेल के पौधे से तांबे के नैनोकोणों का बनाने को समझाया।

तृतीय टेक्निकल सत्र में आईआईटी भिलाई के डॉ. ध्रुव प्रताप सिंह ने माइक्रोरोबोट्स की संरचना एवं उपयोगिता पर अपना व्याख्यान प्रस्तुत किया। उन्होंने माइक्रोरोबोट्स की रसायनिक संरचना तथा जीवाणु संसिग हेतु उपयोगी बताया। एएमपीआरआई भोपाल से वरिष्ठ वैज्ञानिक डॉ. मनोज गुप्ता ने नैनोडिवाइसेस पर ज्ञानवर्धक व्याख्यान प्रस्तुत किया। उन्होंने ग्रेफीन तथा चार्ज ऑक्साइड की संरचना को समझाया। केंद्रीय विश्वविद्यालय हरियाणा से डॉ. अंकुश बिज ने नैनोसाफर की उपयोगिता एवं गुणधर्मों की मिलाई से डॉ. साय्यासाची घोष, डॉ. शोभा वेमपति, डॉ. पद्मावती श्रीवास्तव, डॉ. आर. के. मिश्रा, डॉ. ओमप्रकाश के व्याख्यान होंगे। इसी के साथ विभिन्न राज्यों से सम्मिलित शोधार्थियों द्वारा पोस्टर प्रस्तुतिकरण भी होगा।

शुद्धि के लिए फेराइड मटेरियल की उपयोगिता पर प्रकाश डाला। इसके साथ विभिन्न राज्यों से सम्मिलित शोधार्थियों ने अपने शोध पत्र प्रस्तुत किए। विभिन्न सत्रों को प्रो. एस.जे. बोबले, प्रो. नारायण प्रसाद अधिकारी, डॉ. महावीर शर्मा, डॉ. आर. के. मिश्रा, डॉ. शोभा वेमपति, डॉ. जगजीत कौर सलुजा, डॉ. विकास दुबे, डॉ. सुधाका पात्र, डॉ. साय्यासाची घोष, डॉ. कुसुमजली देशमुख द्वारा सफलतापूर्वक संचालन किया गया।

कार्यक्रम को सफल बनाने में भौतिक शास्त्र के समस्त शैक्षणिक एवं अशैक्षणिक, शोधार्थी एम.एससी द्वितीय एवं चतुर्थ सेमेस्टर के विद्यार्थियों का योगदान रहा। कार्यक्रम के दौरान विभिन्न विभागों के प्राध्यापक शोधकर्ता एवं विद्यार्थी उपस्थित रहे। संयोजक डॉ. जगजीत कौर एवं सचिव डॉ. अभिषेक कुमार मिश्रा के अनुसार इस अंतरराष्ट्रीय सम्मेलन के द्वितीय दिन आई.आई.टी. भिलाई के मिथिला हॉल में विभूवन विश्वविद्यालय, कामांडू नेपाल से प्रो. नारायण प्रसाद अधिकारी, थोरांमेश्वर अधिकारी, आई.एस.बी.एम विश्वविद्यालय से डॉ. एन.कुमार स्वामी, आईआईटी मिलाई से डॉ. साय्यासाची घोष, डॉ. शोभा वेमपति, डॉ. पद्मावती श्रीवास्तव, डॉ. आर. के. मिश्रा, डॉ. ओमप्रकाश के व्याख्यान होंगे। इसी के साथ विभिन्न राज्यों से सम्मिलित शोधार्थियों द्वारा पोस्टर प्रस्तुतिकरण भी होगा।

रोबोटिक्स कृत्रिम बुद्धिमत्ता पर हुई चर्चा

विज्ञान एवं यांत्रिकी में नवीनतम टेक्नोलॉजी के सहयोग से देश का सकरात्मक विकास संभव

कार्नर
न्यूज



शासकीय विश्वनाथ यादव तामस्कर स्नातकोत्तर स्वशासी महाविद्यालय, दुर्ग एवं आईआईटी भिलाई के संयुक्त तत्वावधान में 3 दिवसीय अंतर्राष्ट्रीय सम्मेलन रिसेंट ट्रेंड्स इन साइंस एंड इंजीनियरिंग का उद्घाटन सरस्वती वंदना, राज्य गीत एवं दीप प्रज्ज्वलन कर किया गया।



भिलाई। अंतर्राष्ट्रीय सम्मेलन में मुख्य अतिथि प्रो. एन वी रमणा राव निदेशक, राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर ने अपने उद्घेधन में विज्ञान एवं यांत्रिकी से संबंधित नवीनतम घटनाओं के बारे में बताते हुए कहा कि विज्ञान एवं यांत्रिकी में नवीनतम टेक्नोलॉजी के सहयोग से देश का सकरात्मक विकास संभव हो सकता है। उन्होंने विज्ञान एवं यांत्रिकी विषय पर छत्तीसगढ़ में अंतर्राष्ट्रीय सम्मेलन आयोजित करने पर प्रसन्नता व्यक्त करते हुए महाविद्यालय एवं आईआईटी भिलाई के शोध के क्षेत्र में योगदान की सराहना की। संयोजक डॉ. जगजीत कौर सलूजा ने इस कार्यक्रम की रूपरेखा एवं सम्मेलन किस प्रकार शोध विद्यार्थियों एवं अनुसंधानों से जुड़े प्राध्यापकों के लिए उपयोगी होगा, इस प्रकाश डाला। उन्होंने कहा कि इस सम्मेलन में 42 मौखिक प्रस्तुतिकरण तथा 31 पोस्टर प्रस्तुतिकरण होंगे। एलएसआई अध्यक्ष डॉ. के व्ही आर मूर्ति ने इस सम्मेलन के माध्यम से कहा कि हम विद्वानों और वैज्ञानिकों के साथ-साथ यह सुनिश्चित करने की प्रमुख जिम्मेदारी है कि दुनिया आने वाली पीढ़ियों के लिए विज्ञान एवं इंजीनियरिंग से सुसज्जित हो।



बायोमैडिकल के क्षेत्र में योगदान के विषय में बताया

द्वितीय टेक्निकल सत्र में सैन्य प्रौद्योगिकी विश्वविद्यालय पोलैंड से डॉ. मार्त मिचलास्का डोमनस्का ने लोहा एवं एरगुमिनियम के मिश्रधातु के एनोडजिंग के बारे में बताया। साथ ही अनेक विशेषज्ञों ने अपने विचार रखे। तृतीय टेक्निकल सत्र में आईआईटी भिलाई डॉ. ध्रुव प्रताप सिंह ने माइक्रोरोबोट्स की संरचना एवं उपयोगिता पर अपना व्याख्यान प्रस्तुत करते हुए माइक्रोरोबोट्स को रसायनिक सेंसिंग तथा जीवाणु सेंसिंग के लिए उपयोगी बताया। इसके साथ विभिन्न राज्यों से सम्मिलित शोधार्थियों ने अपने शोध पत्र पत्र प्रस्तुत किए। विभिन्न सत्रों की प्रो एस जे दोबले, प्रो नरारण प्रसाद अधिकारी, डॉ. महेश्वर शर्मा, डॉ. आरके मिश्रा, डॉ. शेषा वेमपति, डॉ. जगजीत कौर सलूजा, डॉ. विकास दुबे, डॉ. सुधांशु पात्र, डॉ. सत्यसावी घोष, डॉ. कुसुमजली देशमुख द्वारा संवादन किया गया।

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