



राष्ट्रीय प्रौद्योगिकी संस्थान मिजोरम  
NATIONAL INSTITUTE OF TECHNOLOGY MIZORAM

THE  
COMPENDIUM

JULY 2023

VOLUME II, ISSUE I

# Director's Message



**Prof. S. Sundar  
Director  
NIT Mizoram**

*Greetings !!*

*This is the First issue of the Second volume of the Institute newsletter 'THE COMPENDIUM'. It is a short collection of advancement of our students, teaching fraternity and staff during the month of JULY 2023.*

*I appreciate the Editorial team for their relentless effort in bringing out 'THE COMPNDIUM'. I congratulate faculty members and students for their publications, participation in academic events, organising academic activities and other notable achievements.*

*I wish all the readers a happy reading !!*



# Editor~ In~ Chief's Message



Dr. Shuchi  
Associate Professor  
Dept. of HSS (English)

*Warm Greetings !!*

*I am pleased to bring out the First issue of the Volume II- Institute monthly newsletter, 'THE COMPENDIUM: a synopsis of events and academic prosperity of NIT Mizoram'.*

*The highlights of the current issue encompass academic & outreach activities and a wide spectrum of research & development for the month of JULY 2023.*

*I express my heartfelt gratitude towards the Director, NIT Mizoram, Prof S Sundar for his encouragement and Support.*

*I extend my sincere thanks to the Editor, Dr. Saurav Suman for all his help and technical support.*

*I also thank all my colleagues (faculty & office staff) and students of NIT Mizoram for their support by sending their achievements to us.*

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## **RESEARCH AND DEVELOPMENT**

### **❖ PUBLICATION (Journal/Conference/Book Chapter)**

1. Dwaipayan Roy, Shuchi, "Reviewing the Collected Works of Jim Morrison: Poetry, Journal, Transcripts, Lyrics" Rupkatha Journal of Interdisciplinary Studies in Humanities, Vol 15, Number 2, ISSN 0975-2935/ 2023.
2. Dr. Ashish Singh Patel, "Ontology-based Detection and Identification of Complex Event of Illegal Parking using SPARQL and Description Logic Queries" Journal: Chaos, Solitons & Fractals with Impact Factor: 7.8 (SCI) accepted for publication.
3. Rudra Sankar Dhar, "Study of Nano-sheet Performance by Varying the aspect Ratio" IEEE Conference WCON2023, July 2023.
4. Rudra Sankar Dhar, "Comparison of Snapback Phenomenon and Physics in Bottom and Top Body Contact NMOS" Book Chapter in Edn. Microelectronics, Circuits and Systems Volume 976, pp.25-33, Springer, June 2023.
5. Sushanta Bordoloi, "Renewable Energy Integration with Electric Vehicle Technology: A Review of the Existing Smart Charging Approaches" Renewable and Sustainable Energy Reviews Volume 183, September 2023, 113518
6. Pujitha, N.P., Vamsi, S., Vikas, K., Sangeetha, G., Vanapalli. K. R. (2023) "Upgrading Recycled Aggregates in Concrete by using Waste Plastics. In Vilventhan", Advances in Construction Materials and Management. ACMM 2022. Lecture Notes in Civil Engineering, Vol 346. Springer, Singapore.

### **❖ WORKSHOPS/CONFERENCES/STTP/FDP ATTENDED**

1. Mr. Sushil Joshi (Research Scholar, Physics) 29th International conference of "International Academy of Physical Sciences (CONIAPS XXIX) on Computational & Physical Sciences-Innovation for Sustainable Development (CPISD-2023) from July 21-23, 2023

## **FACULTY AWARDS & ACHIEVEMENTS**

### **1. EXPERT/INVITED TALK /SESSION CHAIRED IN WORKSHOP/STTP/CONFERENCE:**

1. Dr. Ashish Singh Patel was invited and part of selection committee for project Associate member held on July 31, 2023, at Institute of Bio-Resources & Sustainable Development (IBSD) node, Mizoram.
2. Dr. Rudra Sankar Dhar delivered Keynote Talk: "Emerging Trends in Nano Technology and QW FETs", in Symposium on Integrated Photonics and Quantum Optics, organized by the Centre for Quantum Engineering, Research and Education (CQuERE), TCG CREST, Kolkata, India, July 2023.

## ❖ RESEARCH OUTLOOK @ NIT MIZORAM

Madutha Santosh Kumar is a full-time research scholar in the Department of Electronics and Communication Engineering, specializing in V-Band Klystron design with the use of radial re-entrant square-type cavities. The V-band frequencies are becoming popular due to their application potential towards secure high data rate communications. In the modern era, the V-band frequency range is increasingly used for high data rate secure communications in various fields like short-range communication in the strategic sector, inter-satellite communication, over-the-air wireless backhaul, etc. His research primarily focuses on enhancing the gain and bandwidth of the proposed device, which is simpler in design, has a compact form factor, and is compatible with microfabrication, which are the main advantages of this device. The proposed device can be used for wireless high-data rate mm-wave communication.



संरक्षेद्दूषितो न स्याल्लोकः मानवजीवनम्।

TO SAFEGUARD OUR OWN LIVES, LET'S NOT POLLUTE THE WORLD