

## **BITS & BYTES**



## **OUR TOP PICKS** >PHOTOINJECTION >QUANTAM COMPUTING

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**EDITION JAN-JUNE, 2023** 

# FROM HOD'S DESK



#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION SIRT.

It gives me immense pleasure to note that another edition of Bits & Bytes is ready for launch. Truly, irrespective of class or cadre or caliber, it is the dynamism and pervasiveness of the vision that can lead to sustainable excellence. The big theme today is to focus on creativity and innovation alongside academics. Entrepreneurial wealth creation has been explosive on account of the massive impact made by technology start-ups. It is research and development that fosters innovation and out of the box thinking, be it in design or in implementation.

#### DR. JYOTI JAIN Hod EC

Apply your mind to everything you do, whether it is a small laboratory project or a longer semester project. Understand the "Why", investigate the "Why not" and think through the "How else" and you would already have become an Inventor or Pioneer. Blend some street-smart business sense into the whole thing and you would have transcended into an entrepreneur!!! Wealth creation is meaningless unless it heralds prosperity for posterity. That warrants ethical responses from all stakeholders. That also demands an aspiration to see from a larger canvas and for a longer horizon. Or in other words, flavor your business offering with a sense of ethics, and generations will call you a Visionary!!!

Nurture the Visionary in you!!! This is a common dream!!!

#### **BEST WISHES!**

#### **DEPARTMENT'S VISION**

To motivate and mold students into world-class professionals who will excel in the field of Electronics & Communication Engineering and effectively meet the challenges of the dynamic global scenario.

#### **DEPARTMENT'S MISSION**

To achieve academic excellence in providing technical education by incorporating the principles of Total Quality Management (TQM).

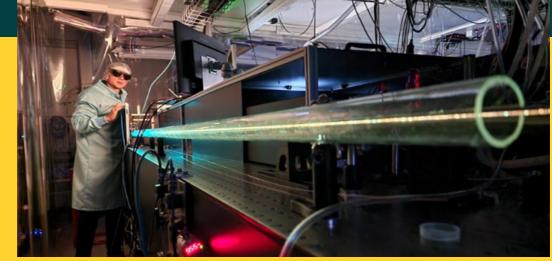
To provide state-of-art infrastructure for enhanced learning & research with IT based knowledge management to meet global challenges.

To inculcate ethical, moral, & cultural values among Electronics & Communication Engineering professionals.

## PHOTOINJECTION

Ultrafast laser physicists from the attoworld team at LMU and the Max Planck Institute of Quantum Optics have gained new insights into the dynamics of electrons in solids immediately after photoinjection.

A laser pulse hits an electron in a solid. If it receives enough energy from the light wave, it can then move freely through a solid. This phenomenon, which scientists have been exploring since the beginnings of quantum mechanics, is called photoinjection.



## QUANTAM COMPUTING

Quantum computing represents a paradigm shift in computation, offering unprecedented possibilities for solving complex problems that are currently intractable. While still in its early stages, quantum computing has already showcased its potential in areas such as cryptography, optimization, and simulation. As the field continues to advance, it will be exciting to witness the breakthroughs and innovations that emerge, ultimately transforming various industries and pushing the boundaries of human knowledge and capabilities.



### **STUDENT'S ACHIVEMENT**







(NBA Accredited)

SAGE

### **DEPARTMENT ACTIVITIES**



Students of Electronics & Communication Engineering participated in SCIENCE FEST, MANIT on 22nd Jan. 23.



Students of the EC Department participated in "an innovative science model contest" sponsored by MPCOST.



EC Department organized Industrial visit for 3rd Sem. Students in "PYE-ELCTRIC" Mandideep on 16th Jan. 23.



EC Department Organized Expert Talk on "Interfacing of Pheripherals by 8051 Microcontroller" by Mr. Reji. K. Mathew , Director- Technical yemota systems & Solution pvt. Ltd. On 12 th April 23.



Our paper will be published in Conference Proceedings (ISBN: 978-81-954164-4-8) and a prestigious journal indexed in Google Scholar, Genamics, Publons, Cite Factor, Advanced Science Index, Journal TOCs, and DRJI.



The department of EC organized " Sundarkand Path " on the occasion of Hanuman Janmotsav on 7 April 2023

Advisor- Dr. Rajiv Shrivastasv

### FACULTY ACHIEVEMENTS

•Dr. Shalini Sahay, Dr. Navneet Kaur, Dr. M.Fatima published paper on "Optimization of Diabetes risk prediction using Machine learning" in IEEE International conference on current development in Engg and technology(CCET), published in IEEE Explore, SAGE University Bhopal.

·Dr. Jyoti Jain, Dr. Navneet Kaur, Dr. Shalini Sahay, Dr. M.Fatima published Nationalpatent " Glasses with Augmented reality for visually impaired people" application id 379394-001 on12/05/2023.

.Dr Uday Panwar has delivered an expert talk on "Roadmap for patent filing in India" at Parul University Vadodara Gujarat.



# EXPERT TALK

Prof. Neenasha Jain completed a certification course on "Python Fundamentals for Beginners".

Students of Electronics & amp; Communication Engineering participated in SCIENCE FEST, MANIT on 22nd Jan. 23.

Department of Electronics and Communication, SIRT, Bhopal organized 4 the National Conference on Recent trends in IOT, Machine Learning, Artificial Intelligence and its Applications (NCRIMA2020) under, IEEE student branch (STB12901), WILEY on 24 – 25 April,23. In Hybrid Mode. A total of 34 papers were received (18 papers from inside of SAGE and 14 papers from outside of SAGE from Mumbai, West Bengal, Noida, Delhi, Pune, Kerala, etc).Total registration amount is 28,000 Rs Keynote Speakers are Dr. Ambika Prasad Shah, IIT Jammu and Dr. Amit Arora, CVR College of Engg.,

EC Department Organized an Expert Talk on "Interfacing of Peripherals by 8051 Microcontroller" by Mr. Reji. K. Mathew, Director- Technical remote systems & amp; Solution Pvt. Ltd. On 12 th April 23.

Dr. Uday Panwar delivered an expert talk on Roadmap for patent filing in India at "Parul University" Vadodara Gujarat on 7 April 2023.