

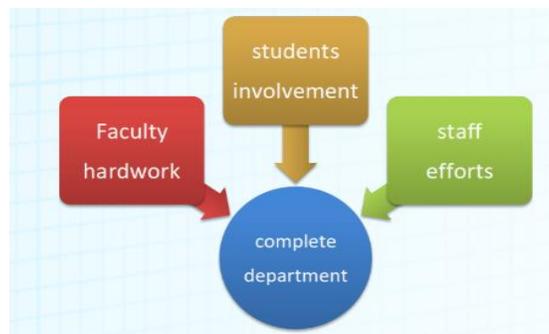
Newsletter April to June 2020

Vision

To create a centre for imparting technical education of international standards and conduct research at the cutting edge of electronics & communication technology to meet the current and future challenges of technological development.

Mission

To create technical manpower for meeting the current and future demands of industry and academia: to recognize education and research in close interaction with electronics & communication & related industry with emphasis on the development of leadership qualities in the young men and women entering the portals of the institute with sensitivity to social development and eye for opportunities for growth in the international perspective.



Publications



1. Joshi, Amit M., and Alongbar Bramha , "VLSI Architecture of Block Matching Algorithms for Motion Estimation in High Efficiency Video Coding" , Wireless Personal Communications Volume :00 / 11 / 2020

2. Manisha Kumawat, Kirti Vyas, R.P.Yadav , "Design of DGS Enabled Simple UWB MIMO Antenna having improvement in Isolation for IOT Applications" , Book Chapter Volume :10.1007 / 978-981 / 2020
3. D. K. Kotary, S. J. Nanda , "Distributed clustering in peer to peer networks using multi-objective whale optimization" , Applied Soft Computing, Elsevier Volume :1 / 106625 / 2020 ISBN: ISSN: 1568-4946
4. Shafi N., Sahu C., Periasamy C. , "Gate All Around Junctionless Dielectric Modulated BioFET Based Hybrid Biosensor" , Silicon Volume :1 / 1-6 / 2020
5. E. Arumona, I. S. Amiri, G. Singh, P. Yupapin , "Dark Soliton Teleportation using Unified Space and Time Function Control within a Microring Circuit" , Microw Opt Technol Lett. Volume :62 / 2183-2188 / 2020 ISBN: 1098-2760
6. Kuldeep Singh, Aryan Agarwal , "Impact of weather indicators on the COVID-19 outbreak: A multi-state study in India" , medRxiv Volume :1 / 1-10 / 2020
7. Menka , "Double Gate Tunnel FET Versus Double Gate MOSFET: Electrical Properties Comparison" Electronics Systems and Intelligent Computing by Springer Nature Publisher Ltd. at NIT Arunachal Pradesh // 2020
8. Basudha Dewan, Menka Yadav , "A TCAD Approach to Evaluate the Performance of Double Gate Tunnel FET" International Conference on Emerging Technology-INCET - 2020 by IEEE at Jain College Bangluru, India // 2020
9. Radhoene Massoudi, Monia Najjar, Vijay Janyani , "Tunable C and L Bands Demultiplexer Based on Photonic Crystal Ring Resonator" The 16th International Wireless Communications & Mobile Computing Conference by IEEE at Limassol, Cyprus / 1427-1430 / 2020
10. Radhoene Massoudi, Monia Najjar, Vijay Janyani , "Novel Design Superelliptic Photonic Crystal Ring Resonator Based on Channel Drop Filter" The 16th International Wireless Communications & Mobile Computing Conference by IEEE at Limassol, Cyprus / 1359-1363 / 2020
11. Radhoene Massoudi, Monia Najjar, Nikhil Deep Gupta, Vijay Janyani , "Low Crosstalk and Small Size 12-Channel WDM Demultiplexer Based on 2D Photonic Crystal" The 16th International Wireless Communications & Mobile Computing Conference by IEEE at Limassol, Cyprus / 1353-1358 / 2020
12. A. M. Joshi, P. Jain, S.P.Mohanty , "Secure-iGLU: A Secure Device for Noninvasive Glucose Measurement and Automatic Insulin Delivery in IoMT Framework" 2020 IEEE Computer Society Annual Symposium on VLSI (ISVLSI) by IEEE at Cyprus / 11 / 2020
13. "Book Chapter" Four Elements MIMO Antenna Array Having Band Notching Properties and High Isolation ISBN:978-981-15-1059-5 published by - Springer, Singapore Year:2020 Authors- Vyas K., Gautam D., Yadav R.P.
14. "Book Chapter" Language learnability analysis of Hindi: a comparison with ideal and constrained learning approaches ISBN:9780128194461 published by - Academic Press,

Elsevier (Cognitive Informatics, Computer Modelling, and Cognitive Science, Volume 2)
Year:2020 Authors- Sandep Saini; Vineet Sahula

15. "Book Chapter" Miniaturized Single-Layer Asymmetric CPW-Fed Antenna for UWB
ISBN:2524-7573 published by - Springer Nature Singapore Year:2020 Authors- Kirti
Vyas, Dilip Gautam, Rajendra Prasad Yadav

16. "Reference Book" Optical and Wireless Technologies 2019. Lecture Notes in Electrical
Engineering, vol. 648 ISBN:978-981-15-2926-9 published by - Springer Nature Pvt. Ltd.
Singapore Year:2020 Authors- Janyani V., Singh G., Tiwari M., Ismail T.

Placement Data

- **UG Data**

| Registered Students | Total Placed | Min Package | Average Package | Max Package |
|---------------------|--------------|-------------|-----------------|-------------|
| 74 | 60 | 4.2 | 10.3 | 22 |

- **PG Data**

| Total Placed | Min Package | Average Package | Max Package |
|--------------|-------------|-----------------|-------------|
| 22 | 4.2 | 10.3 | 17 |

- **ARTICLE: Recent machine learning applications in space**

The many terabytes of data that are generated from space missions must be analyzed, and accurate decisions must be made. This article highlights two important areas where automated machine learning (ML) systems are helping to science the data and allowing engineers and scientists to make more informed decisions without drowning in ones and zeros. One such area is exoplanet detection. This application is particularly unique because data analysis is crowd sourced as part of a citizen science effort in which members of the public who are not part of the science team take part, using powerful open source methods and software tools running on clusters of servers available in the

cloud. Another important application is anomaly detection in spacecraft telemetry. In this case, ML can be used not only to automate detection of intermittent failures, much like finding the needle in the haystack, but also to predict future trends of complex signals, such as electrical power fluctuations. ML is a method for training software to recognize complex patterns in data. ML has become successful because of its high prediction accuracy, which sometimes exceeds that of humans. This is particularly evident in convolutional neural networks (CNNs), which are loosely modeled after neurons in the human brain and display an ability to robustly learn features across a wide range of fields. The downside to neural networks is the lack of a comprehensive theoretical understanding about what makes them work so well, which means that creating neural networks is still something of an art. Data must be preprocessed and augmented as necessary; parameters must be chosen carefully; and underlying constraints, such as physics, must be obeyed through careful construction of training data.

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