

DEPARTMENT OF ELECTRONICS AND COMMUNICATION



Newsletter

VISION

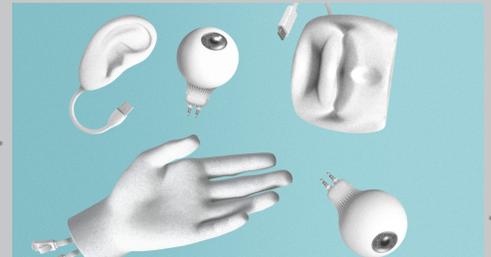
To create a centre for imparting technical education of international standards and conduct research at the cutting edge of electronics & communication technology to meet the current and future challenges of technological development.

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.

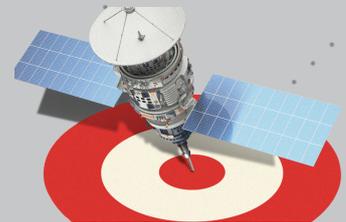
Breakthrough Technologies 2021

Multi-Skilled AI



Despite the immense progress in artificial intelligence in recent years, AI and robots are still dumb in many ways, especially when it comes to solving new problems or navigating unfamiliar environments. One promising approach to improving the skills of AI is to expand its senses; currently AI with computer vision or audio recognition can sense things but cannot “talk” about what it sees and hears using natural-language algorithms.

Hyper Accurate Positioning



We all use GPS every day; it has transformed our lives and many of our businesses. But while today's GPS is accurate to within 5 to 10 meters, new hyper-accurate positioning technologies have accuracies within a few centimeters or millimeters. That's opening up new possibilities, from landslide warnings to delivery robots and self-driving cars that can safely navigate streets.

*source: technologyreview.com

Faculty Name	Award Name	Activity	Given by	Year
Dr. Sarthak Singhal	Enlisted in	"2% Scientist across the world"	Stanford University and Elsevier	2021

Sr. No.	Project Director	Title of the Project	Funding Agency	Amount (Lacs)	Duration
1	Dr. D. Boolchandani	Charge pump PLL frequency synthesizer design	ISRO	21.35	2021-2023
2	Prof. Ghanshyam Singh	Development of a Satellite Quantum Communication Network (SQCN)	BRICS MULTILATERAL PROJECTS	15.82	2020-2023



Subhasree Majumder, Vipin Pal, Yogita Thakran, Kuldeep Singh, "Fuzzy and Rough Set Theory Based Computational Framework for Mining Genetic Interaction Triplets from Gene Expression Profiles for Lung Adenocarcinoma", IEEE/ACM Transactions on Computational Biology and Bioinformatics Volume :XX / 1-1 / 2021

Bhuvash Jolly, Wahdat Ullah, Namrata Saxena, Ritu Sharma, Vijay Janyani, "Structural and microstructural analysis of spin coated PVDF thin films", Ferroelectrics Volume :583 / 151-161 / 2021

Shanky Saxena, Ritu Sharma, B. D. pant, "Fabrication of Fixed-Fixed Beam Type Piezoelectric Vibration Energy Harvester", SILICON Volume :- / 6 / 2021

Gaurav Tripathi, Kuldeep Singh, Dinesh Kumar Vishwakarma, "Applied convolutional neural network framework for tagging healthcare systems in crowd protest environment", Mathematical Biosciences and Engineering Volume :6 / 8727-8757 / 2021

Shreyas Tiwari and Rajesh Saha, "Methods to Reduce Ambipolar Current of Various TFET Structures: a Review", SILICON Volume :Accepted / 1-8 / 2021

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Geetha P., S. J. Nanda, R. P. Yadav, "A Parallel Chaotic Sailfish Optimization Algorithm for Estimation of DOA in Wireless Sensor Array", Physical Communication, Elsevier Volume :1 / 1-32 / 2021 ISBN: ISSN 1874-4907

Ajay Yadav, R.P.Yadav, "Quarter wavelength parasitic stub loaded polarization reconfigurable patch antenna", Electromagnetics Volume :41 / 459-467 / 2021

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Basudha Dewan, Shalini Chaudhary, Menka Yadav, "Electrically Doped SiGe-Heterojunction TFET Based Biosensor Considering Non-Ideal Hybridization Issues: A Simulation Study", Applied Physics A 2021

Amit Kumar Sharma, Ritu Sharma, "Effect of noise on the performance of deterministic CNOT gate for photonic Qubits", Optical and Quantum Electronics, Springer Volume :53 / 8 / 2021

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Riya Sen, Menka Yadav, "Performance Analysis of LeadFree Perovskite Solar Cells" International Conference on Computational Techniques and Applications by Springer at Kolkata ACCEPTED // 2021

Amit Kumar Sharma, Shishir Kumar Sharma, Ritu Sharma, "A Promising Circuit for All Optical Based Quantum Computing" OWT21 by Springer at MNIT Jaipur / 6 / 2021

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R. Saha, B. Bhowmick, and S. Baishya, "Hot Carrier Effect in Ferro-FinFET for variation in temperature, work function, and FE layer thickness", Integrated Ferroelectrics Volume :221 / 1-8 / 2021

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Pranjal Patel, Hemant Kuma, Shriram Sharma, Pritesh Sutrar, Devender Pal Singh, Menka, "Smart Attendance Cum Health Check Up Machine for Students" iSES 2021 by IEEE at MNIT Jaipur, India / 2 / 2021

"Book Chapter" Effect of Dielectric Material on Electrical Parameters Present near Source Region in Hetero Gate Dielectric TFET ISBN:9781003126645 published by - CRC Press Year:2021 Authors- Rajesh Saha, Suman Kumar Mitra, Deepak Kumar Panda

"Reference Book" Optical and Wireless Technologies ISBN:978-981-16-2818-4 published by - Springer Year:2021 Authors- M Tiwari, RK Maddila, AK Garg, A Kumar, P Yupapin

"Book Chapter" Performance Analysis of LeadFree Perovskite Solar Cells ISBN:- published by - Springer Year:2021 Authors- Riya Sen, Menka Yadav

"Book Chapter" SIVAS: Smart Interactive Virtual Assistance System - A Voice User Interface ISBN:- published by - IOP Publishing Year:2021 Authors- Abhishek Bharti, Amardeep Kumar, Manonita Verma, Lochana Perera, Dr. Menka

"Book Chapter" Smart Attendance Cum Health Check Up Machine For Students/Villagers/company employees" ISBN:- published by - CRC Boca Raton, FL 33487, U.S.A. (2022) Year:2021 Authors- Pranjal Patel, Shriram Sharma, Pritesh Sutrar, Hemant Kumar, Devender pal Singh, Menka Yadav

PLACEMENT DATA

- Highest Package Offered to UG student: 60 LPA
- Highest Package Offered to PG students: 30 LPA

Top Companies:

- L&T
- Amazon
- Apple
- Texas Instruments
- ECE Students are placed in giants like APPLE and Amazon
- ECE students placed till now: more than 70
- Highest package is also offered to an ECE student.
- Minimum Package Offered: 9 LPA
- Average Package Offered: 16 LPA

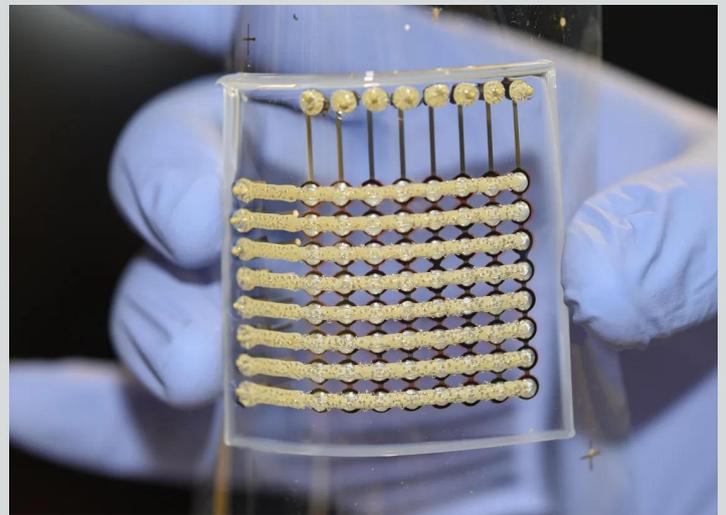
15TH CONVOCATION (15/10/2021)



Reader's Choice

3D-Printed OLEDs

Laptops and phones with OLED displays boast rich colors at high contrasts—but they come at a premium price. Researchers from the University of Minnesota in the Twin Cities (UMN) say they've found a potential solution to that price barrier by using a 3D printer that could eventually lead to people making their own OLED screens at home.



LCDs may be the mainstay of consumer displays, but when it comes to picture quality, including high contrast ratio, brighter colors, and wider viewing angles, OLEDs have the edge. These organic light-emitting diode displays are so-called because of their self-emission capabilities, using organic carbon-based compounds and other ingredients to create colors. Because each pixel produces its own light, OLEDs require no backlighting. They are, therefore, more power efficient, and can be fabricated into slimmer and more flexible displays.

“Anyone with the basic knowledge of 3D printing can print OLED displays...in homes that possess the proper inks and designs.”

—Ruitao Su, MIT

*Source: IEEE Spectrum

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Devender Pal Singh; PhD Scholar
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