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TESLA

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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Edition 1

Context

"Organic Electronics"

Prayaag 2024-25

MuLearn Carnival

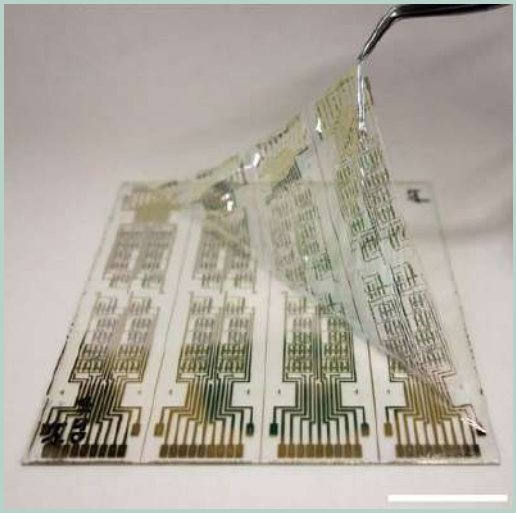
Vision and Mission

Devika Nair,
Angela S -
S7 ECE
2021-25

TESLA

-NEWSLETTER BY ECE (2021-25)

AUGUST-NOVEMBER 2024

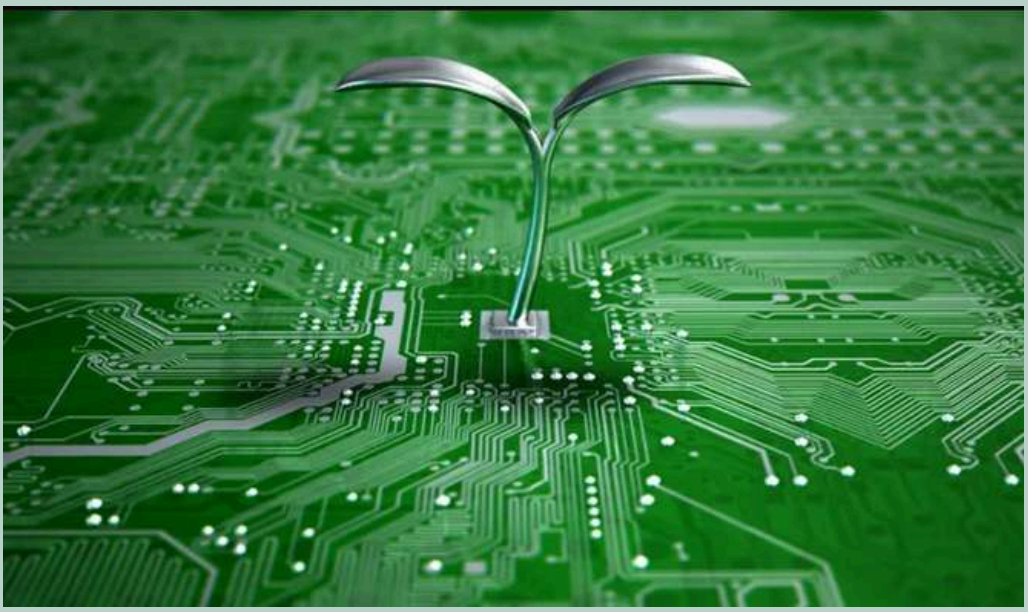


Crystallizable Organic Semiconductors with Machine Learning

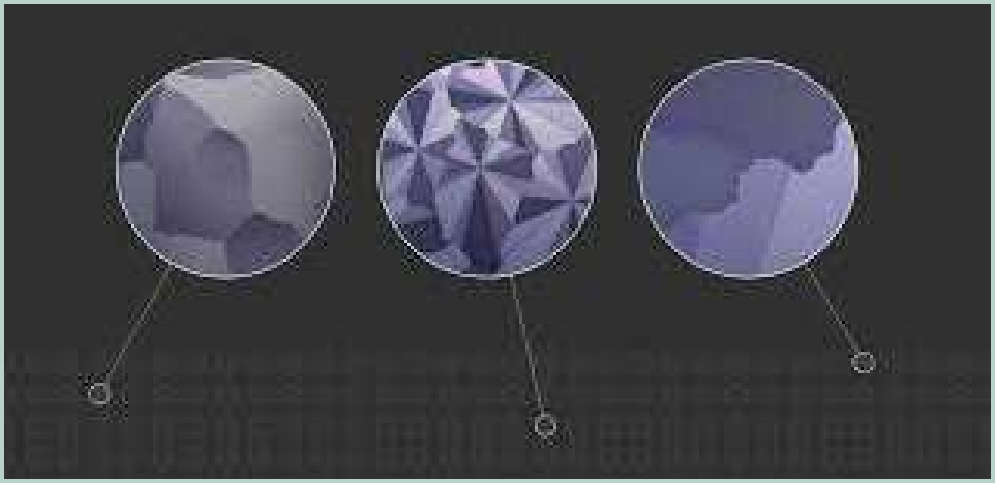
Organic semiconductors represent a transformative technology that bridges traditional electronics with the versatility of organic materials. They make flexible, wearable devices and next-generation displays possible.

"This novel approach combines machine learning modeling of thermal properties of molecules with high throughput virtual screening"-Gusev, a doctoral student

In collaboration with scientists at Princeton University, Carnegie Mellon University researchers Filipp Gusev and Olexandr Isayev, the Carl and Amy Jones Professor of Interdisciplinary Science, devised a way to use machine learning (ML) to rapidly identify potential COS materials.



Crystallizable organic semiconductors (COS) represent a subset of organic electronic materials that have garnered substantial attention in recent years due to their unique properties and potential applications. Certain COS can form well-ordered crystalline structures, which is crucial for enhancing charge transport properties. In COS, molecules are arranged in a regular, periodic pattern, facilitating more efficient charge carrier movement through the material.



"Polarized optical microscopy images show, from left to right: rac-BINAP, TBT and spiro-TAD crystallized as platelets, an ideal shape for future device applications."

PRAYAAG 4.0

LBS Institute of Technology for Women takes immense pride in being a pioneer of women's engineering education in Kerala. We were thrilled to have conducted the fourth edition of PRAYAAG, our prestigious intercollegiate technical festival on 28th and 29th of September 2024 .

PRAYAAG 4.0 is a celebration of innovation, creativity, and collaboration, brought to life by our vibrant associations:

CARYATID – Civil Engineering

VISTARA – Electronics, Applied Electronics, and Electrical Engineering

CODEX – Computer Science and Information Technology

This year's festival promised an enriching and exhilarating experience for all participants. We had a diverse lineup of:

*Competitions to test your skills and creativity

*Technical Exhibitions showcasing groundbreaking ideas

*Workshops to fuel your curiosity and innovation

ESP32 Nexus - Participants discovered how to turn their ideas into reality using the powerful ESP32 microcontroller.

Teams competed in an exciting robotics-based soccer challenge, showcasing innovation and technical skills.

Tech Trek Challenge - Participants engaged in solving complex technical questions for an opportunity to win exciting prizes.

Telekinesis event showcased hand gesture control of LEDs using OpenCV and Arduino for interactive experiences.

MuLEARN CARNIVAL

µlearn
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The Mu Learn Carnival featured stalls on AI, Web, IoT, and Entrepreneurship, where participants gained knowledge through engaging activities. Participants earned tokens based on their completion, with the person collecting the most tokens winning the jackpot prize.

VISION AND MISSION OF THE INSTITUTION

VISION OF THE INSTITUTE

To be a centre of academic excellence empowering women in the technical domain.

MISSION OF THE INSTITUTE

Imparting value-based technical education to young women transforming them to professionals excelling globally in academics, research and development, and industry meeting social challenges.

VISION OF THE DEPARTMENT

To become the centre of electronics communication and instrumentation and computer engineering to facilitate professional education and research keeping higher level of value systems.

MISSION OF THE DEPARTMENT

M1: To transform young women to high-quality engineers, entrepreneurs, and researchers with ethical values.

M2: To contribute creative engineering solutions to industry by keeping pace with the latest technological advancements.

M3: To provide intellectual services to the society by application of electronics communication and instrumentation and computer engineering.