SVCE | Sri Venkateswara College of Engineering

SRI VENKATESWARA COLLEGE OF ENGINEERING

VIDYUT

NEWSLETTER

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DEPARTMENT OF
ELECTRICAL AND ELECTRONICS ENGINEERING

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Sri Venkateswara College of Engineering

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ELECTRICAL AND ELECTRONICS ENGINEERING

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III Year

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II Year

Mr. L. Hrtish Calvin
II Year

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II Year

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ABOUT THE DEPARTMENT

Welcome to the Department of Electrical & Electronics Engineering (EEE) at Sri Venkateswara College of Engineering (SVCE) in Sriperumbudur.

Established in 1985, the department was created to address the curriculum requirements of Electrical engineering subjects within Electronics and Communication Engineering, Mechanical Engineering, and Computer Science Engineering. Initially admitting 60 students, the department now accommodates 120 students, reflecting the growing demand for its programs.

The department holds permanent affiliation with Anna University and has been accredited by the National Board of Accreditation (NBA) for five consecutive years. Additionally, it offers a postgraduate program (M.E) in Power Electronics and Drives since 2002, with an intake capacity of 6 students.

Equipped with state-of-the-art laboratories, the department is recognized as a nodal research center by Anna University. Its faculty and staff members are highly qualified and experienced, possessing proven abilities and skills.

Graduates of the department have been successfully placed in renowned companies, while a significant number pursue advanced studies abroad.

The Department goes beyond the curriculum to nurture young minds by fostering technical clubs that promote technical events, community development, societal impact, and programs on universal values and ethics.

In line with this commitment, the Department of Electrical & Electronics Engineering has established the Institute of Electrical and Electronics Engineers (IEEE) and the Association of Electrical and Electronics Engineers (AEEE) to support students' innovations.

EEE – WE LIGHT THE WORLD

VISION AND MISSION

Vision of the Institution

To be a leader in Higher Technical Education and Research by providing the state-of-the-art facilities to transform the learners into global contributors and achievers.

Mission of the Institution

To develop SVCE as a "CENTRE OF EXCELLENCE" offering Engineering Education to men and women at undergraduate and postgraduate degree levels, bringing out their total personality, emphasizing ethical values and preparing them to meet the growing challenges of the industry and diverse societal needs of our nation.

Vision of the Department

The vision of Electrical and Electronics Engineering Department is to provide a high standard of education in Electrical and Electronics Engineering so as to meet the industry standards through domain.

Mission of the Department

M1: To create state of the art facilities such that the students excel in Electrical and Electronics Engineering education.

M2: To equip students with a well-defined curriculum to meet the requirements of Industries and society.

M3: To promote a culture of research, innovation and entrepreneurship in the thrust and allied areas of Electrical and Electronics Engineering.

M4: To inculcate soft skills and foster ethical values and shape the total personality of the student

PROGRAM EDUCATIONAL OBJECTIVES AND PROGRAM OUTCOMES – UG(EEE)

Program Educational Objectives (PEOs) UG-EEE

PEOI: Graduates of EEE transformed to engineering contributors in the fields of Electrical, Electronics and Computer Engineering.

PEO2: Succeed in becoming entrepreneurs through human centered design thinking and innovation.

PEO3: Become eligible to pursue higher studies in their chosen areas of engineering or management

PEO4: Effective, conscious and ethical team player in the field of green energy management and sustainability

Program Outcomes (POs) for UG-EEE

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. Design/development of solutions: Design solutions for complex engineering problems and design system components processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. Modern tool usage: Create, select and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PROGRAM OUTCOMES AND

PROGRAM SPECIFIC OUTCOMES – UG(EEE)

6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and lead.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

PSO1: The ability to build, implement, test and maintain analog and/or digital systems and implement electronic control of Drives for Industrial automation and Electric Vehicle.

PSO2: The ability to analyze Power System network encompassing stability, control and protection and interconnection of Renewable Energy Sources with Micro and smart grid.

PROGRAM EDUCATIONAL OBJECTIVES AND PROGRAM OUTCOMES – PG(EEE)

Program Educational Objectives for PG Program (PEOs)

I. Contribute professionally in fields of Power Electronic and related domains.

II. Manage and execute research and development projects leading to technological solutions that address industries and society.

III. Succeed in pursuing higher studies in engineering domains.

Program Outcomes (POs) for PG-PED

PO1: An ability to independently carry out research/investigation and development work to solve practical problems.

PO2: An ability to write and present a substantial technical report/ document.

PO3: Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

Program Specific Outcomes (PSOs) for PG-PED

PSO1: The ability to design and analyze Power Electronic converters and control of Electric drives for Industrial applications.

PSO2: The ability to apply Power Electronic Circuits in Transmission and distribution network of Power System and interconnection of Renewable Energy.

DEPARTMENT ACTIVITIES

3rd January 2024

LAPTOP SCHEME (2023-2024)

The Sri Venkateswara College of Engineering unveiled the Laptop Scheme for the academic year 2023-2024. The scheme provides a Lenovo V15 G382TTA0OVIH laptop with the configuration: Intel Core i3-1215U processor, 8GB RAM, 512GB SSD storage, Windows 11 SL, 1M HD camera, no fingerprint reader, integrated graphics, WiFi, Bluetooth, and a backpack. The purchase value of the laptop is Rs. 33,630/-.

HOD/EEE and AHOD/EEE handed over the Laptops to the eligible students.

DEPARTMENT ACTIVITIES

The beneficiaries of the scheme is furnished in the following table.

BENEFICIARIES(from 2nd year EEE):

S.No	*Name of the Student*	*Reg.No.*	*Branch*	*Regular/Lateral entry*	*Category*
1.	*Aswin Raj M P*	*2127220601011*	*EEE*	*R*	*EM*
2.	*Saghana S*	*2127220601057*	*EEE*	*R*	*EM*
3.	*Sanofer Nisha M S*	*2127220601064*	*EEE*	*R*	*EM*
4.	*Vimalkumar K V*	*2127220601088*	*EEE*	*R*	*EM*

*EM- Economic Means, *R- Regular

DEPARTMENT ACTIVITIES

20th January 2024

EXPERIENCE AT SVCE

The objective of the program is to provide a platform for the students to gain insights in the field of Electricals and Electronics Engineering (EEE) and its potential applications in various industries and future advancements.

Dr.KR.Santha,Vice Principal, Professor and Head of the Department Enlighted the parents Significance of Electricals and Electronics Engineering (EEE) in various industries, its current trends and opportunities.

24th January 2024

BHOOMI POOJA

Centre for Integrated Smart Waste Management

On January 24th, at 9:30 am, the Department of Electrical and Electronics Engineering hosted a warm welcome for all attendees to join the auspicious Bhoomi Pooja ceremony. This marked the commencement of the construction. The project received support from the Management of SVCE and the Science and Engineering Research Board (SERB), Government of India. The ceremony took place at a location adjacent to the Sewage Treatment Plant (STP) near the ECE block.

30^{th} January 2024

PLEDGE ON MARTYRS DAY

The Technical Education Movement advocated for the observance of silence on Martyrs Day, which fell on January 30^{th} in India. This day held significance as it paid tribute to the brave freedom fighters who sacrificed their lives in the struggle for India's independence from British rule. By observing silence, they honored the memory and sacrifices of iconic figures like Bhagat Singh, Sukhdev Thapar, and Shivaram Rajguru. Additionally, the movement emphasized the abolition of untouchability, fostering a society based on equality and dignity for all individual.

EVENTS ORGANIZED

12th January 2024

PONGAL CELEBRATION

Pongal, a three-day Hindu festival held throughout South India, was celebrated on the winter solstice. According to the traditional Hindu system of reckoning, the Sun, having reached its southernmost point, turned to the north again and re entered the sign of makara (Capricorn).

Pongal festival was celebrated in a grand manner, under the aegis of the Women Empowerment Cell, lead by Dr.KR.Santha, Vice Principal, Chairperson (WEC-SVCE) at Lord Vijaya Ganapathy Temple, SVCE on 12.01.2024. Staff and Students of all departments participated in the celebration

EVENTS ORGANIZED

INDIAN SOCIETY FOR TRAINING AND DEVELOPMENT(ISTD-SVCE)

31st January 2024

ISTD - STUDENT CHAPTER SVCE CONDUCTS AN EXCLUSIVE WORKSHOP

INNOVATE 360 : ENGINEERING FUTURE UNVEILED

This workshop aimed to provide insights into the importance of projects and their role in shaping the academic and professional journey of our students. Students eagerly participated at the "Innovate 360: Engineering Future Unveiled" workshop.

SESSION 1

“Projects in higher education application”

by Dr Sudhakar K Bharatan, Professor EEE

EVENTS ORGANIZED

SESSION 2

“Transitioning from campus to career: leveraging projects for successful transition” by Mokshada Amin JRay McDermott Engineering Services Pvt Ltd

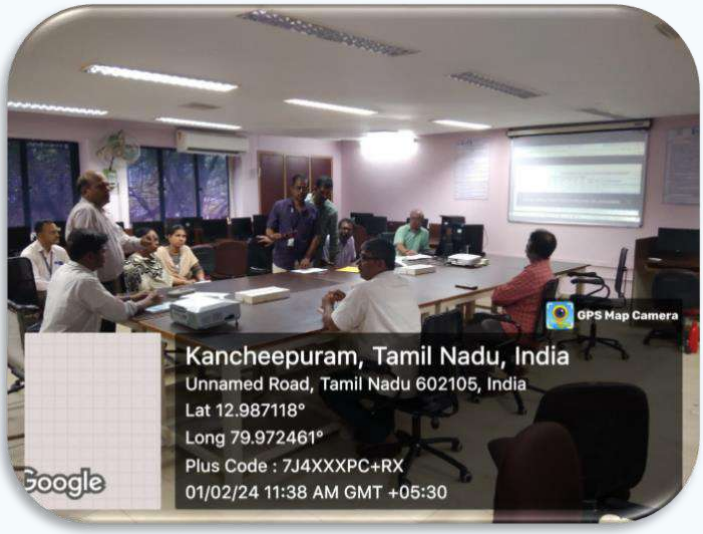
SESSION 3

“Projects as a launch pad for entrepreneurship”

by Dr. S. Ilaiyavel Manager ,Enterpreneurship Promotion and Incubation centre , SVCE

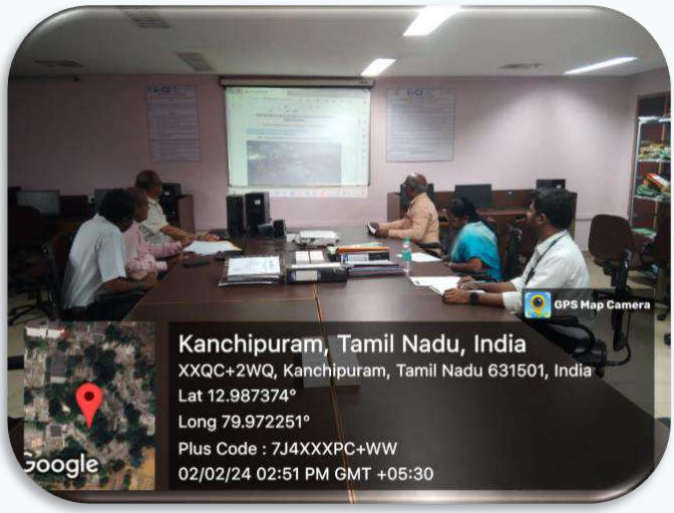
FACULTY ACHIEVEMENTS

AQAR INSPECTION



Annual Quality Assurance Report (AQAR) is a mandatory report which an institution required to submit to NAAC every year by all Accredited Institutions as per the format authorized. AQAR would be useful to know the growth of the institution after the accreditation.

IAAA Audit



IQAC – IAAA audit of EEE department was conducted on 02.02.2024 by

Dr. S. Ramesh Babu Mechanical Engineering(HOD)

FACULTY ACHIEVEMENTS

RESEARCH PAPER
published in ELSEVIER-Energy reports by
Dr. R. Kannadasan, Assistant Professor/EEE

Unleashing the potential of sixth generation (6G) wireless networks in smart energy grid management

https://doi.org/10.1016/j.egyr.2024.01.011

As the world continues to seek sustainable and efficient energy solutions, the integration of advanced technologies into smart energy grid management (SEGM) becomes a paramount focus. The advent of Sixth Generation (6G) wireless networks promises to revolutionize the way energy grids are monitored, controlled, and optimized. This review paper explores the potential of 6G wireless networks in the context of SEGM. It discusses the vision and potential techniques that can be harnessed to unlock the full capabilities of 6G networks. The paper delves into the challenges and opportunities presented by 6G technology, addressing issues such as scalability, security, real-time monitoring, and dynamic spectrum access. Moreover, it explores how 6G wireless networks can enable seamless integration with other advanced technologies, such as blockchain and cybertwin, to enhance the resilience and reliability of smart energy grids. The comprehensive review aims to shed light on the transformative role of 6G wireless networks, paving the way for a sustainable and intelligent future in energy grid management.

FACULTY ACHIEVEMENTS

30th January 2024

Technical Talk on Patent

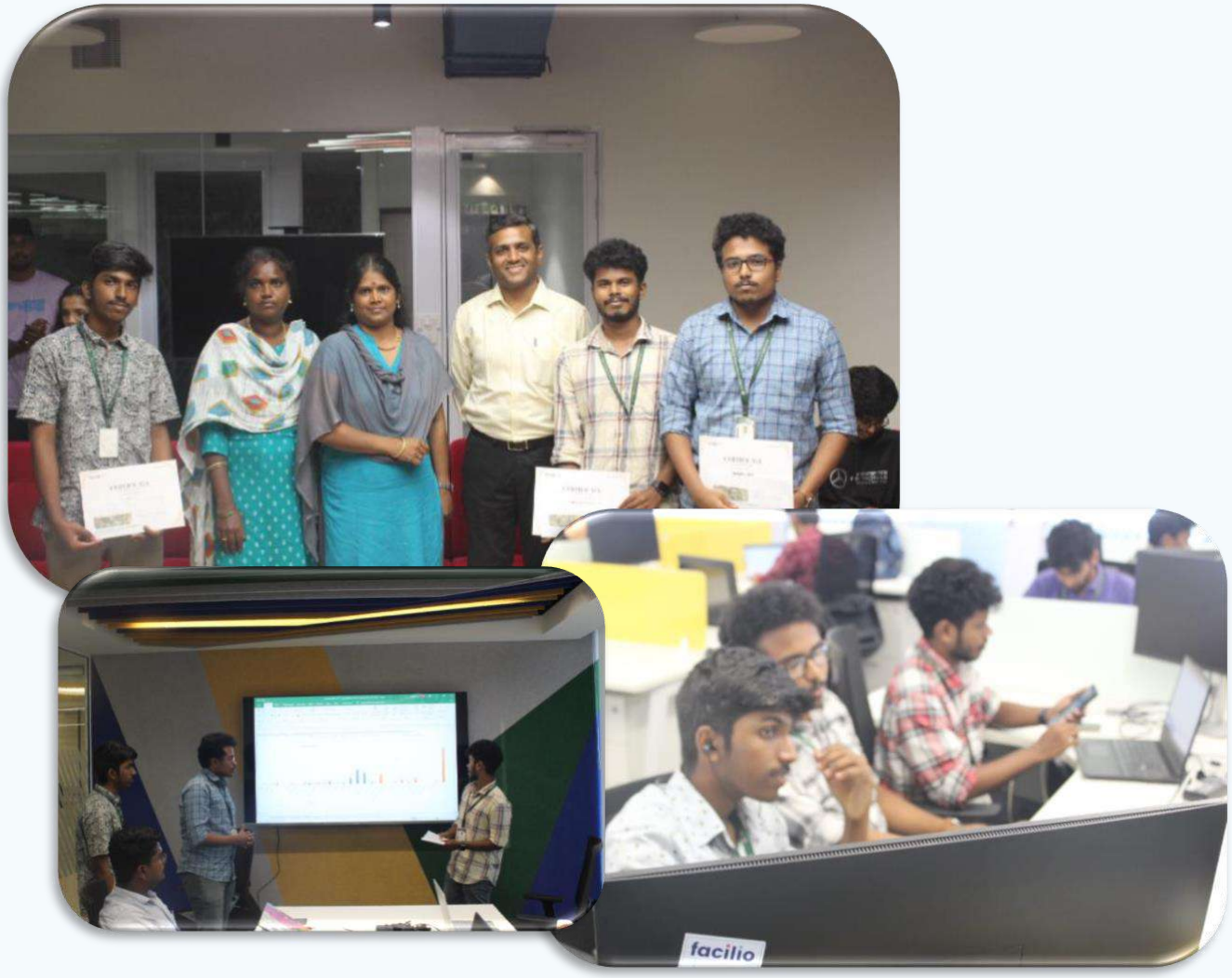
was delivered by Dr. C. Gopinath professor,EEE

On the technical aspect of Invention

of his patent

"A system and method for thermal management in automotive seats using solar energy"

Which was organised by Dr.Muthukumaraswamy Dean(Research) at the Function Hall of the college.



ANALYTICS SHOWDOWN

Aravin Takshan K K, Dinesh C, Barath S N from 3rd year participated in a two-day event which was conducted in facilio office campus, Guindy by know-I club (CSE)

They were given with unprocessed datasets and given the task to analyze and present the insights from that and they were adjudged as winners based on their presentation and how good the data visualisation was.

STUDENT ACHIEVEMENTS

Certificate of winners of the ANALYTICS SHOWDOWN

Keerthana S, Sabari S and Srilayaa R T team of final year students were submitted a project proposal for the Naan Mudhalvan program

"NEURON BASED CONTROL MECHANISM FOR ROBOTIC ARMS AND LEGS" guided by

Dr.KR.Santha(Professor & Head, EEE)

&

Harini N, Haresh V, Ashwanthram T another team of final year students were submitted a project proposal for the Naan Mudhalvan program

"H2S/NH3 SENSOR" guided by

Dr.Sudhakar K Bharatan (Professor, EEE)

PLACEMENT DETAILS

The following final year students were placed

in the campus drive conducted till January 2024.

NEWGEN

Ajay Rohith

Augustin A

Mohammed Kaif

Nikhil R Rathi

Rajeshkumar M

Sakthivelu K M

EmbedUR

WORLEY

J G C India EPC Pvt LTD

Harini N

Dharini K N

Mohammed Kaif

PLACEMENT DETAILS

+

TATA ELXSI

Aniruddh Sakthivel

Augustin A

Bharathwaj P

Dhaanya kumar G S

Dhivya B

Mohammed Kaif

Ramana R P

Sudharsan

PLACEMENT DETAILS

JSE Engineering Pvt Ltd

Sai Teja K

Santhosh B

Sabari S

Poorani B

Srilayaa RT

MCDERMOTT

Deepak H

Sharath Kumar V G

PLACEMENT DETAILS

EMERSON

Poorani B

Keerthana. S

Panimalar SN

MOBICIP

MUSIGMA

CELESTICA

Sharon Monisha

Mohanishwar

Naveen Kumar RA

PLACEMENT DETAILS

EXPEDITORS

Mrithuna Rashmi

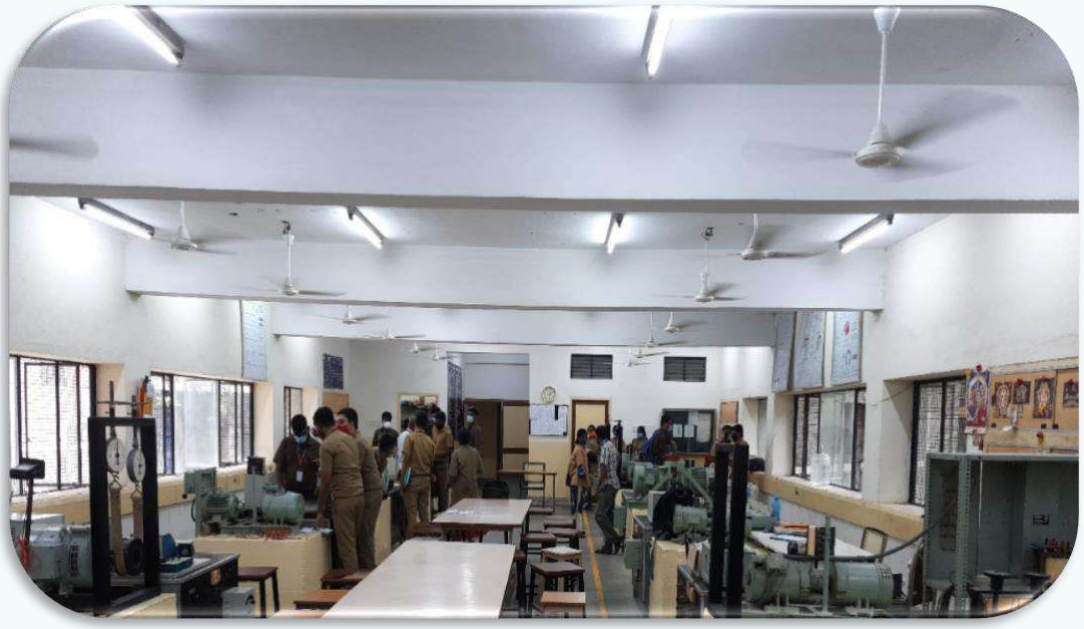
Kobelco Industrial Machinery India

Gunaal M

Jayashree V

LABORATORY FACILITIES - EEE

ELECTRICAL MACHINES LABORATORY



INDUSTRIAL AUTOMATION AND ELECTRIC VEHICLE LABORATORY

LABORATORY FACILITIES - EEE

ELECTRONICS CIRCUITS AND INSTRUMENTATION LABORATORY

SOFTWARE LABORATORY

Project Demonstration by students at Power Electronics Laboratory

Project Demonstration by students at Microprocessors Laboratory

PG - ADMISSIONS

PHD - ADMISSIONS

INTERDISCIPLINARY NANO RESEARCH CENTRE