



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

"ವಿ ಟಿ ಯು ಅಧಿನಿಯಮ ೧೯೯೪" ರ ಅಡಿಯಲ್ಲಿ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ
ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ

Visvesvaraya Technological University

(State University of Government of Karnataka Established as per the VTU Act, 1994)
"Jnana Sangama" Belagavi-590018, Karnataka, India



Prof. B. E. Rangaswamy Ph.D.

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Ref. No.: VTU/PS/2024-25/ 2310

Date: 21 AUG 2024

CIRCULAR

Sub: Participation in Faculty Development Program on Research Pathways in EV
Technology and Power System.

Ref: SJBIT, Bengaluru, Letter No.SJBIT/ADM/176/2024, dated 14.08.2024

With reference to the above subject, this is to inform that the Department of Electrical and Electronics Engineering, SJB Institute of Technology, Bengaluru are organizing **Six Days Faculty Development Program** on “**Research Pathways in EV Technology & Power System**” in blended mode from on 26th to 31st August 2024 at EEE Department, SJBIT, Bengaluru.

Faculty Development Program Brochure is enclosed for further information and you may contact, Convener, Dr. M. J. Chandrashekar, Professor & HOD, Dept. of EEE, SJBIT, Mob.: 9886328100, e-mail: eeehod@sjbit.edu.in. For registration you may visit the following link:

<https://forms.gle/BQjRtqck5DFtvcSAA>

You are hereby requested to bring the contents of this circular to the notice of all the concerned.

Sd/-

REGISTRAR

Encl: Brochure

To,

- 1) The Principals of all the Affiliated/Constituent/Autonomous Engineering Colleges and School of Architecture of VTU.
- 2) The Chairpersons/Programme Coordinators of all the Departments, Centers for PG Studies of VTU in Muddenahalli, Belagavi, Kalaburgi and Mysuru.

Copy to:

- 1) The Hon'ble Vice-Chancellor, through his Secretary, VTU, Belagavi for information.
- 2) The Regional Directors (I/c), VTU Regional Centres at Bengaluru, Belagavi, Kalaburgi & Mysuru for information.

Ra 21/08/24 EE
REGISTRAR

Program Schedule

Day	Date	Time	Name of the Resource Person	Topic
1	26 th Aug	10:30 to 12:30 PM *2:00 to 3:30 PM	Dr. Paramesha Krishniah, SSE, Additional Director at Energy Department, GoK on deputation KPITCL Dr. Chandan Kumar Chanda, Professor, Department of EE, HEST, Shdbpur	Session 1: Hybrid Energy Source Integration on base load condition Session 2: Understanding Inertia with zero spin energy into a grid.
2	27 th Aug	10:30 to 12:30 PM 2:00 to 3:30 PM	Ms. Uma B R, Scientist, ISRO, Bangalore	Session 3: Current trends and evolution of power system technology
3	28 th Aug	10:30 to 12:30 PM 2:00 to 3:30 PM	Dr. Bansal Barava, Assistant Professor, Reva University, Bangalore	Session 4: Satellite Technology Session 5: Modeling of Lithium Ion Batteries for electric vehicle application
4	29 th Aug	*10:30 to 12:30 PM *2:00 to 3:30 PM	Prof. Sandeep Mondal, Professor, EE department IIT - Bombay Dr. K Deepa, Professor, Amrita School of Engineering, Bangalore	Session 6: Mathematical Modelling of Battery using Software tool (Lab Session Hands on) Matlab Tool Session 7: Biological Learning in Semiconductor Devices Session 8: Power Electronics Converters for Battery Charging in Electric Vehicle
5	30 th Aug	10:30 to 12:30 PM *2:00 to 3:30 PM	Mr. Kiran Ramprasad, Senior Manager @ Fanell Global, Component Engineering Specialist, Technical Product Content Expert Dr. Arnu Neelmoegham K. M., Dept of EEE, NIT Calicut Dr. Balaraman K, Executive Director, Idan Infrastructure Advisory Pvt. Ltd, Former Director General National Institute of Wind Energy, MNRE	Session 9: Comprehensive Overview of Power Management and Applications: Power Architectures, Market Trends and Products Session 10: Fuzzy control Techniques
6	31 st Aug	10:30 to 12:30 PM 2:00 to 3:30 PM		Session 11: Progress in the clean energy transition towards net Zero Valedictory Session

* ONLINE SESSION
Registration: Open to Faculties of all Branches, Research Scholars and Industrial participants

Registration fee: 600/-

How to Apply?

The participant has to register through
Link: <https://forms.gle/PFA3C3V7mq4JLnZL6>

Venue: EEE Department, SJBIT



In case of any queries please drop mail to:

Convener

Dr. M J Chandrashekar, Professor & HOD, Dept. of EEE

eeehod@sjbit.edu.in, 9886328100

Coordinator

Mr. Vijay Kumar K, Asst. Prof, Dept. of EEE

vjaykk@sjbit.edu.in, 9036435059

Organizing Committee:

Dr. Sandeep S R, Assoc. Prof, Dept. of EEE

Dr. J P Sridhar, Assoc. Prof, Dept. of EEE

Dr. Rekha P S, Assoc. Prof, Dept. of EEE

Mr. Dwarakanath S K, Asst. Prof, Dept. of EEE

Mrs. Tarakeshwar V, Asst. Prof, Dept. of EEE

Mr. Chiranth L N, Asst. Prof, Dept. of EEE

Mr. Prakrath D, Asst. Prof, Dept. of EEE

Mr. Kubera U, Asst. Prof, Dept. of EEE

Mrs. Vimala C S, Asst. Prof, Dept. of EEE

Mr. Mohan B S, Asst. Prof, Dept. of EEE

Mr. Hemant Kumar S, Asst. Prof, Dept. of EEE

Mrs. Suma. C, Asst. Prof, Dept. of EEE



|| Jai Sri Gurudev ||



SIX Days Faculty Development Program



on

Research Pathways in EV Technology and Power System

From 26th to 31st August 2024



Organized by



Department of Electrical and Electronics Engineering
Sri Adichunchanagiri Shikshana Trust. (R)

SJB INSTITUTE OF TECHNOLOGY

Autonomous Institute Affiliated to VTU

Approved by AICTE, New Delhi

Accredited by NBA & NAAC with 'A+' Grade

No. 67, BGS Health and Education city, Dr.

Vishnuvardhan Road, Kengeri, Bengaluru-560060.

Phone: 080-28612445/46, Fax: 080-28612651



Divine Blessings:

His Divine Soul Jagadguru

Sri Sri Sri Dr. Balagangadaramatha Maha Swamiji,
Founder President, Sri Adichunchanagiri Shikshana Trust (R)

Chief Patron:

His Holiness Jagadguru Sri Sri Sri Dr. Nirmalanandanatha Mahaswamiji, Chief Pontiff, Sri Adichunchanagiri Shikshana Trust (R)

Patron:

1. Revered Sri Sri Dr. Prakashanatha Swamiji
Managing Director, SJB & BGS Group of Institutions, Bengaluru

2. Dr. S. Vidyashankar, Honorable Vice-Chancellor, VTU

3. Dr. B. E. Rangaswamy, Registrar, VTU

Organizing Chair

Dr. K. V. Mahendra Prashanth
Principal, SJBIT, Bengaluru

Programme Chair

Dr. C.V. Yelamagad, Advisor, Research and Development, SJBIT

Convener

Dr. M J Chandrashekar
Professor & Head, Department of EEE, SJBIT, Bengaluru

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Professor & Head, Department of EEE, SJBIT, Bengaluru

About SJBIT

Welcome to the prestigious enclave of SJB Institute of Technology (SJBIT), a beacon of excellence nestled in the heart of Bangalore, India. Since its inception in 2001 by the visionary of His Holiness Jagadguru Padmabhusana Dr. Sri Sri Sri Balagangadharanatha MahaSwamiji, SJBIT has been a bastion of holistic education, harmonizing the triad of intellectual, spiritual, and physical development.

The esteemed BGS and SJB Institutions and Hospitals were conceived from the visionary education ideals of the revered His Divine Soul Jagadguru Padmabushana Dr. Sri Sri Sri Balagangadharanatha Mahaswamiji. Today, this profound legacy is ardently upheld by the esteemed Chief Pontiff & President, Sri Sri Sri Dr. Nirmalanandanatha Mahaswamiji of Sri Adichunchanagiri Shikshana Trust @. At the helm of this extraordinary venture stands our Managing Director, the esteemed Revered Sri Sri Dr. Prakashanath Swamiji, leading the BGS and SJB Group of Institutions and Hospitals with unparalleled dedication.

As an autonomous institution under VTU, SJBIT offers eight undergraduate and four postgraduate programs, including MBA and MCA, all approved by AICTE, New Delhi, and accredited by NBA & NAAC with an 'A+' Grade.

Vision

To become a recognized technical education center with global perspective.

Mission

To provide learning opportunities that fosters students' ethical values, intelligent development in science & technology and social responsibility so that they become sensible and contributing members of the society.

Highlights of Institutions:

- 8 Under graduate courses B.E. (CSE, ECE, ISE, EEE, DS (CSE), AI& ML, MECH & CIVIL),
- 3 Post graduate courses M.Tech, MBA and MCA
- 10 Recognized Research Centers (CSE, ECE, ISE, EEE, MECHANICAL, CIVIL, MATHS, PHYSICS & CHEMISTRY)
- Meritorious students (UG & PG) were being awarded with Gold Medals.
- Full-fledged Training & Placement Cell provided.
- Library facility with over 44000+ books +24000 E books and exclusive Digital library facility.

Who all can Attend ?

Open to Faculties of all Branches, Research Scholars and Industrial participants

About the FDP

Understanding Inertia with Zero Spin Energy: Inertia refers to an object's resistance to changes in its motion. Zero spin energy implies a situation where an object has no rotational motion, yet it still exhibits inertia due to its mass.

Satellite Technology: Satellite technology is advancing with the miniaturization of satellites. Innovations like high throughput satellites (HTS) and enhanced Earth observation capabilities are driving new applications in connectivity, navigation, and environmental monitoring.

Mathematical Modeling of Batteries Using Matlab Tool: By utilizing Simulink and optimization tools, students can understand battery dynamics and apply this knowledge to real-world EV applications, improving design and efficiency.

Challenges and Solutions of Real-Time Load Management at SLDC: Real-time load management at SLDCs involves challenges like accurate demand forecasting and maintaining grid stability with renewable energy integration.

Biological Learning in Semiconductors: Biological learning in semiconductors focuses on creating devices that mimic neural networks, such as neuromorphic chips. These innovations aim to enhance computing efficiency and are applied in AI, robotics, and IoT devices.

Power Electronics Converters for Battery Charging in Electric Vehicles: Power electronics converters are essential for efficiently charging EV batteries. Advances in bidirectional converters also support vehicle-to-grid (V2G) technologies, allowing EVs to contribute power back to the grid.

Power Management and Applications: Power Architectures, Market Trends, and Products involves understanding the critical aspects of power management systems, including their design, market dynamics, and practical applications.

- Indoor Auditorium with 1800 seating capacity.
- 24 hours Hospital facility in the Campus and Commercial complex with ATM Counter and Bank.
- Multi Station Hi-tech Gym.
- 400 mtrs track playground & Indoor Sports Complex.
- 204 Mbps Internet connection with Wifi Campus
- Insurance coverage to all students up to Rs 1.5 lakh
- Secured 64 Ranks and 11 Gold medals from VTU

About the Department

Electrical and Electronics Engineering department being one of core department of SJBIT was established in the year 2004 with 60 intakes for UG and lead by Dr. M J Chandrashekar. The department is strengthened with qualified and dedicated Professors, Associate and Assistant professors, further corroborated by well qualified technical staff.

The breadth and depth of the subject's knowledge and research interests of the academic staff ensures a high standard of lecture courses and provides excellent opportunities for challenging and stimulating thinking of students. Departments have a state of art research lab, well equipped laboratories for practical exposure to students. Individual faculty deliver lectures through ICT platform like Apple/iOS, video projections, keynotes, activity and project-based learning process.

Department Vision

To become one among the best departments in engineering and research arena through professional faculty and state of art laboratories and to make the students successful engineers with good ethics.

Department Mission

M1: To provide learner-centric environment through quality education and training.

M2: To lay the foundation for research by fortifying peers & establishing incubation center.

M3: To develop the overall personality of the students to face the challenges of the real world.

Online Transfer Details:

Account Name: SJB Institute of Technology

Account No: 2890101004792

IFSC: CNRB0002890

Bank and Branch: Canara Bank, BGSSEC, Kengeri, Bengaluru



ON

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Chief-Convenor
Dr. K. V. Mahendra Prashanth
Principal, SJBIT



Convener
Dr. M. J. Chandrashekar
Prof & HOD EEE, SJBIT