



RCC Institute of Information Technology

Department of Electrical Engineering

NEWS LETTER



Volume : 1

Issue : 2



My heartiest greetings to the editorial board of the Electrical Engineering Departmental newsletter for publishing their second newsletter, which shall be an appreciation of the contribution of all the members made to upgrade RCCIIT as a centre per excellence in the State.

Prof. (Dr.) Arup Bhaumik
Principal, RCCIIT



As the saying goes by "Coming together is a beginning, keeping together is progress and working together is success", I congratulate the entire editorial team, all the faculty & staff members and EE students for their solidarity in bringing out successfully the second edition of yearly EE departmental Newsletter. Let this news letter and series of such letters shall keep us all continuously informed about all the developments of the department in the years to come. I wish all the faculty members, all the staff and students of the department for having taken the best initiatives in bringing out this Newsletter. Once again I would like to thank all my colleagues and students for their tireless efforts to help the department progress at a very steady pace.

With best wishes to the Newsletter Team.

Dr. Debasish Mondal
HOD, EE Dept, RCCIIT

Vision of the Department

To create world class professionals who are globally competitive, capable of using and developing state-of-the-art technologies along with research and innovation in EE and allied fields.

Mission of the Department

To provide education to the students that will enable them to meet the current and future needs of EE and possess diverse capabilities to pursue their careers successfully.

To be research and innovation oriented so as to investigate and develop new technologies.

To remain constantly agile to the needs of industry, environment and society so as catered to the needs of the nation and the global community.

Go Green Initiative: In-house Usage of Non conventional Energy



Department of Electrical Engineering sets up the system consists of One Horizontal Axis 3.8 KW @ 48V, Wind Turbine coupled induction Generator, 4 KW (500 W × 8) Solar Panels @ 48V. The Co-generated Energy is converted to DC and combined in a DC Bus. Which in turns run a Grid Tied true Sine Wave Inverter and Excess Energy after catering the Load of Two Labs is used to charge the Storage Battery rated at 48 Volt @ 400 AH.



The Solar PV Panel charges the Battery and Cater the required load at Daytime while at evening the Wind turbine is dominant if the wind velocity is more than the critical value.

REAL TIME EXPERIMENTAL RESEARCH LABORATORY



This laboratory is set up for promoting research and development activities in joint collaboration with National Instrument, USA. Laboratory Virtual Instrument Engineering Workbench (LabVIEW) a system-design platform and development environment is established for a visual programming language from National Instruments. This state-of-the-art research laboratory consists of hardware equipment of cRIO-9075 Integrated Controller and chassis system, 400 MHz Power PC controllers, LX 25 Gate FPGA, 4 slots and Software Radio Education Lab station (Two NI USRP-2920 bundles with Lab. materials) and 5 user license LabVIEW software with 10 Toolboxes.

INDUSTRIAL VISIT ORGANIZED

Name of the Program	Organizer	Date
Geetanjali Solar Enterprise	EE Dept	03/03/2020
Tega Industries Ltd	EE Dept	04/04/2018
joint collaboration with CII		
Orient Electric Limited	EE Dept	20/12/2018
Tata Bearing	EE Dept	24/03/2017
Berger India	EE Dept	29/03/2017
Linde India Limited	EE Dept	30/03/2017
Eveready industries India ltd	EE Dept	31/03/2017



Industry Institute Partnership

- The Department of EE has entered in a Memorandum of Understanding (MoU) on 20.02.2020 with Landis+Gyr Limited to Extend Technical training and Internship to the students and to enhance Industry-Academia interface.
- The Department of EE has also entered in a Memorandum of Understanding (MoU) on 04.02.2020 with M/S Geetanjali Solar Enterprise for Enhancement of Industry-Academia interface, to gain better exposure of Industry for the students





Seminar, Workshop, FDP organized

- IIE student chapter of the Department of Electrical Engineering, RCC Institute of Information Technology has organized a 2 days students' event on 6th & 7th August, 2019.
- Engineer's Day Celebration: Organized by IEEE Student Branch, RCCIIT under the Dept. of Electrical Engg. on 13th September 2019
- NBA awareness program of the Dept. of EE held on 03.01.2020 in the Institute Language Laboratory, NBA expert Prof (Dr.) Swapan Kumar Goswami
- Inaugural Ceremony of WALL MAGAZINE of Electrical Department- VOLTAZINE on 30th Jan 2019 at RCCIIT, Dept. of Electrical Engg.
- Expert Lecture Session on "System-on-Chip Development: Eco System, Latest Technology Trends, Design Methodology and Best Practices" Organized By the Department of Electrical Engg, RCCIIT Speaker: Mr. Sanjib Sarkar, Intel Corporation, CA, USA
- One Week Faculty Development Program on "Power Electronics in Electric Vehicle and Smart Grid" (PEEVSG-19) July 22nd – 26th, 2019 Organised by, Department of Electrical Engineering (NBA Accredited), RCCIIT, Kolkata

Major Student Projects

- Home Automation using Internet of Things (IOT)
- LabVIEW based Temperature Measurement and Control
- MAGLAV base Vertical Axis Wind Turbine
- PLC (Programmable Logic Controller) based Automatic Bottle Filling System
- IOT Based Remote Automated Irrigation Control System Drive
- Globally Controlled Multiple Relays using Node MCU
- Wireless Temperature Monitoring and Control using DS18B20
- Hardware Implementation of a Fragile Digital Image Water Marking Methodology
- Ultrasonic Sensor based Water Level Monitoring & Control
- IOT Based Weather Forecast Chat Bot
- Battery Life Cycle/State of Charge of Battery



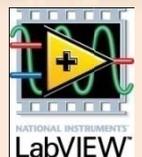
Departmental Library

- The library also possesses copies of tutorial-books, lab manuals are kept in the library, and those are used by U.G students. Presently this library has more than **50 copies**.
- Copies of old project reports of pass-out UG students which are used as reference by the later UG students and conference papers published by faculties and students of this department are also kept in the library.
- Daily news papers are also kept in the library for faculties and students of the library.

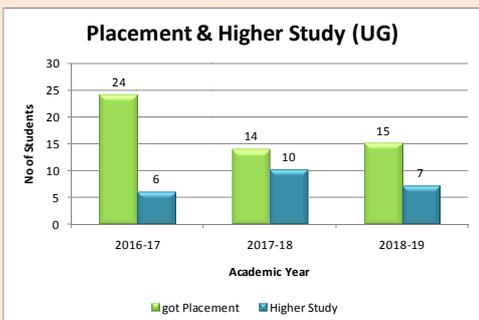


Special Software

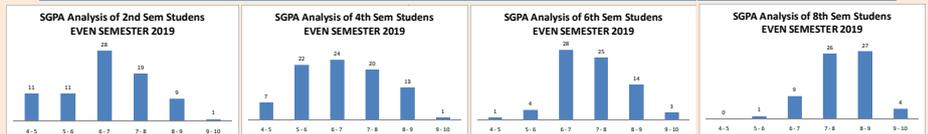
- NEPLAN – Power system Design software, 35 user licensed
- ETAP – Electrical Transient Analysis Program, 5 user licensed
- Labview – Virtual Instrumentation, 5 user licensed
- DSpace - DSpace is the software of choice for academic, non-profit, and commercial organizations building open digital repositories



Placement & Higher Study



Student Academic Performance



Student Achievements

- Ms Tanusree Mukherjee) received Certificate of Achievements Award (02) for Job Excellency from AMAZON
- Mr. Soumyadeep Mukherjee) received Gold Medal for Academic Excellence in ISM, DHANBAD in M.Tech
- Bhaswati Chakraborty secure First Position in Safarnama (Eastern Group dance) held in Jadavpur University, February 2020
- Mr. Rahul Rakshit appointed & Joined in a multinational company M/S Primetals Technologies India Pvt. Ltd. (HQ, UK)

INTERACTION WITH OUTSIDE WORLD

- **Editorial Board members**

Editorial board members of International Journal of Business Intelligence and Data Mining, Inderscience, International Journal of Electronics Science, Technology and applications and Associate editor of International Journal of Intelligent Autonomous System.

- **Expert Lecture/Examiner**

Mr. Budhaditya Biswas invited as Expert Speakers in IoT at Elite college of Engineering & Management.

Dr. Debasish Mondal has invited as a Guest Teacher for a UG and PG subject, Dept. of Applied Physics, University of Calcutta

Dr. Ashoke Mondal acted as a paper setter and Examiner in the Govt. College of Ceramic Technology

Dr. Shilpi Bhattacharya invited as examiner for B.Tech summer training at Gitanjali Solar Enterprise.

- **Invited reviewer**

Dr. Alok Kole acting as Editorial board members of International Journal of Business Intelligence and Data Mining, Inderscience, International Journal of Electronics Science, Technology and applications and Associate editor of International Journal of Intelligent Autonomous System

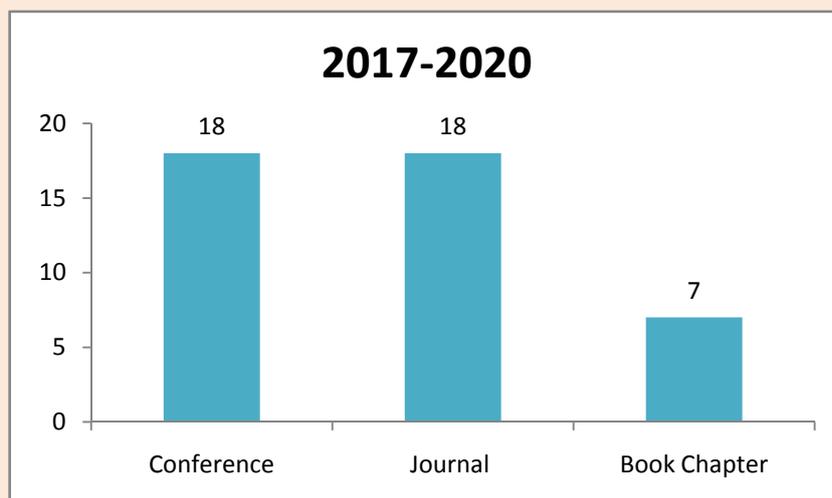
Dr. Debasish Mondal, serves as Invited reviewer of “DE-GRUYTER”, International Journal of Emerging Electric Power Systems” Manuscript Number: IJEPS-0033-2017, : IJEPS-0129-2017

Dr. Debasish Mondal is the Editorial Board Member, in A R Research Publication & Conference world <http://www.arresearchpublication.com>, 2018-19

Mr. Budhaditya Biswas has invited as an External Examiner for PG Project, Dept. of Electrical Engineering, Jadavpur University

FACULTY PUBLICATIONS

- A. Halder, D. Mondal and M. K. Bera, “Design of sliding Mode excitation controller to improve Transient stability of a power system,” International Conference on Modeling and Simulation (MS-17), Organized by: Association for the Advancement of Modelling and Simulation Techniques in Enterprises (A.M.S.E., France) at Kolkata, India on Nov. 04-05, 2017.
- D. Mondal, Published in Book Chapter: Modelling and Simulation in Science, Technology and Engineering Mathematics. Publisher: Springer, Cham, ISBN: 978-3-319-74807-8. Part of : Advances in Intelligent Systems and Computing, Springer (AISC, volume. 749).
- A. Halder, D. Mondal and N. Pal, “Nonlinear Optimal STATCOM Controller for Power System Based on Hamiltonian Formalism,” 2018 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Organized by IIT, Madras. Dec. 18-21, 2018.
- K. Kumar, D. Mondal, “PSO Based H_{∞} PID Controller for a 2nd Order Time Delay System,” 2nd International Conference on Information Technology and Applied Mathematics (ICITAM 2019) Organized by Haldia Institute of Technology (HIT), Haldia, India. March 07-09, 2019.
- Md. Abdul Alim Sheikh, AlokKole, TanmoyMaity, “A Multi-level Approach for Change Detection of Buildings using Satellite Imagery”, International Journal of Artificial Intelligence Tools, 2018, ISSN (print): 0218-2130 ISSN (online): 1793-6349.
- Md. Abdul Alim Sheikh, AlokKole, TanmoyMaity, “A Framework for Building Change Detection using Remote Sensing Imagery”, International Journal of Emerging Trends in Science and Technology, Vol.04, Issue 08, pp. 5502-5508, 2017. DOI: <https://dx.doi.org/10.18535/ijetst/v4i8.14>, ISSN 2348-9480 2017.



Glimpses of the Department



Batch 2010 - 2013



Batch 2011 - 2014



Batch 2012 - 2015



Batch 2013 - 2016



Batch 2014 - 2017



Batch 2015 - 2018



Batch 2016 - 2019

This New letters is a sincere attempt to portray the salient achievements of the department of Electrical Engineering at RCC Institute of Information Technology. Every effort has been taken to provide the reader with sufficient and succinct information about the various activities of this department. I hope that the reading will be informative and enjoyable.

Budhaditya Biswas, Editor, Assistant Professor, EE Dept, RCCIIT



In order to succeed, your desire for success should be greater than your fear of failure.