

OP Jindal University, Raigarh

Department of Electrical Engineering

Quarterly Report April to June 2023

Journal Publication

Dr. G. Madhusudhana Rao et al have been submitted and accepted for publication titled with **“Sensor less BLDC motor drive using a multi-sector space vector PWM method based on ANFIS”** with International Journal on Recent and Innovation Trends in Computing and Communication **E-ISSN: 2321-8169**

BOOK Publication:

Dr. G. Madhusudhana Rao et al have been published a text book titled with **“Advanced Sensor Technology”** with Mahi Publications, Ahmedabad with **ISBN Number 978-93-95581-86-8**

International Conference:

- **Dr. G. Madhusudhana Rao** et al have presented a paper titled “Improving the performance of DFIG using SME to enhance the power quality” in the International Conference on ERSEM held during 19th & 20th may 2023, at SRIT Proddatur, A.P.
- **Dr. G. Madhusudhana Rao** et al have presented a paper titled “Monitoring And Control Of Motor Drive Parameters Using Internet Of Things Protocol For Industrial Automation” in the International Conference on IURAISD held during 30th & 31st may 2023, at ICFAI University, Raipur
- Rakesh Patidar, Dr. R. D. Patidar, **Ankireddy Narendra**, Dr. G. M. Rao and Vikas Raghuwanshi has presented a paper titled “Remodeling and Simulation of Isolated Photo-Voltaic System interfacing Induction Motor with Aggravate & Observe MPPT” in the International Conference on ERSEM held during 19th & 20th may 2023, at SRIT Proddatur, A.P.
- Pratik Mohanty, Prasanta Kumar Jena, and **Ankireddy Narendra** has presented a paper titled “Review of Bi-directional DC-DC Converter” in the International Conference on ERSEM held during 19th & 20th may 2023, at SRIT Proddatur, A.P.
- Anjali Yadav, **Ankireddy Narendra**, Dr. R. D. Patidar, Dr. G. M. Rao, Rakesh Patidar and Rupesh patel has presented a paper titled “An Artificial Intelligence based Standalone Solar Photovoltaic Maximum Power Point Tracking in the International Conference on ERSEM held during 19th & 20th may 2023, at SRIT Proddatur, A.P.

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- [Sushree Diptimayee Swain](#) *Pushpanjali Shadangi* and G.Madhusudhana Rao presented a paper on “ Design and Development of DSTATCOM for Power Quality Improvement” ERSEM 2023, 19th-20th 2023, SRIT Proddatur, AP.
- **Pushpanjali S Hota**, Sushree Diptimayee Swain published one book chapter on the topic” PSO controlled DSTATCOM for harmonic compensation” in Springer.

Research Achievements and Publications:

- Dr Ankireddy Narendra reviewed an article in IJPEDS in May 2023.

Webinars:

- Guest Lecture delivered by Mr. Shashikant Kaushaley on “Energy Conservation in New Era” in SEMS Group on 9th June 2023. ([Youtube Link: https://www.youtube.com/watch?v=WguYvcxtWvc](https://www.youtube.com/watch?v=WguYvcxtWvc))
- **Dr Ankireddy Narendra** attended a session on “Role of Institutions of Engineers (INDIA) in Engineering and Technological Aspects” by Dr Vinay Kumar Panday organised by OPJU, Raigarh on 8-04-23.
- **Dr Ankireddy Narendra** attended a session on “one thing” by Geoff Wood organised by OPJU, Raigarh on 27-04-23.
- **Dr Ankireddy Narendra** attended a session on “Theory of Constraints” by Dr S Nayak by OPJU, Raigarh on 05-05-23.
- **Dr Ankireddy Narendra** attended a session on “Modelling Electric Motors and Drive Trains” by IEEE on 20-05-23.
- **Mr. Rakesh Patidar** attended a session on “Theory of Constraints” by Dr S Nayak by OPJU, Raigarh on 05-05-23.
- **Ms. Pushpanjali S Hota** attended a session on “one thing” by Geoff Wood organized by OPJU, Raigarh on 27-04-23.

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- **Ms. Pushpanjali S Hota** organized an alumni talk on the topic “ Design thinking for corporates” by Ms Aishwarya Agarwal, senior software consultant, Infosys Ltd. on 15-05-23.
- **Ms. Pushpanjali S Hota** organized an alumni talk on the topic “ Jugaad the modern hacks for engineers” by Mr. Indrajit Mishra, LM Director operations, Delhivery Logistics Ltd. on 27-05-23.
- **Ms. Pushpanjali S Hota and Dr. Prashant Jena** organized an expert talk with joint collaboration of OPJU, Raigarh and SRI SRI University, Odisha on “**Postmodern media and politics of communication information**” dated 30/05/2023 by Dr. Narayan Jena, Professor SRI SRI University.

Faculty and Staff involvement in university activities

- **Dr Ankireddy Narendra** taking part in OPJU newsletter departmental coordinator from 25/05/2023.
- **Dr Ankireddy Narendra** taking part in OPJU NAAC Signages / Beautification committee member from 14/06/2023.
- **Dr Ankireddy Narendra** taking part in departmental Monthly Progress Report from 03/06/2023.
- Mr. Rakesh Patidar and Mrs. Pushapanjali S. Hota are involved in various industrial visits for, MTech/BTech lateral MOU and internship opportunities for students.
- Mr. Rakesh Patidar & Mrs. Bhawna Deshmukh- had conducted a NSS Outreach Activity for Final year students on 21st April 2023 at Village Samaruma (C.G.) for “**“Awareness program on Energy conservation, Girl education and Swachchhata Abhiyaan”**”
- Dr Sushree Diptimayee Swain involved in various CDC activities
- Dr Sushree Diptimayee Swain involved in NAAC 1.3.4(Last 5 years internship+5 years project report+notices) data collection
- Dr. Sushree Diptimayee Swain is involved in the work of day-care center (NFA and list of essentials), maintenance of girls common room, etc.
- **Ms. Pushpanjali S Hota**, involved in Alumni documents collection and alumni talk activities for NAAC 18 point.

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- **Ms. Pushpanjali S Hota**, involved in Alumni meet preparations scheduled at Angul on 15 July 2023.
- **Ms. Pushpanjali S Hota**, involved in MTech admissions related activities.
- **Ms. Bhawana Deshmukh**, involved in Guest Lecture preparations scheduled at Angul on 08 May 2023.
- PhD Pre Thesis Presentation has been completed for **Mr. Jiten Sao** under the supervision of Dr RD Patidar, and Dr Deeptimayee Swain on 10-05-2023
- M Tech Presentations have been completed for **2020 batch** under the coordination of Dr Deeptimayee Swain on 17-05-2023
- Industrial Training For the **Diploma 3rd** year has been scheduled and completed on 15-29th of May 2023
- Industrial Training For the **B Tech 3rd and 2nd year** have been scheduled and completed on 15-29th of May 2023

Workshops/FDP/Seminars

- **Dr G Madhusudhana Rao** attended a five days FDP on “Recent Trends in Electrical Engineering” organised by Dr.Lankapalli Bullayya Engineering College, Vishakapatam during 24-28 April, 2023.
- **Dr G Madhusudhana Rao** attended a five days FDP on “Recent Trends in Data Science for Engineering” organised by CBIT, Hyderabad during 26-30 June, 2023.
- **Dr G Madhusudhana Rao** attended a five days FDP on “Smart Grids and Microgrids in Indian Context” organised by MGIT, Hyderabad during 20-24 June, 2023.
- **Dr G Madhusudhana Rao** attended a five days FDP on “AWS Using DevOps” organised by CMREC, Hyderabad during 26-30 June, 2023.
- **Dr Ankireddy Narendra** attended a five days FDP on “Recent Trends in Electrical Engineering” organised by Dr.Lankapalli Bullayya Engineering College, Vishakapatam during 24-28 April, 2023.
- Mr. Rakesh Patidar attended a five days FDP on “Recent Trends in Electrical Engineering” organised by Dr.Lankapalli Bullayya Engineering College, Vishakapatam during 24-28 April, 2023.
- Ms. Pushpanjali S Hota attended Online One Week Short Term Course on “Recent Industrial Trends in Control and Optimization (RICO-2023)”, May 01-05, 2023, ICE Department, NIT Jalandhar.
- **Ms. Pushpanjali S Hota** attended Online one day FDP on “Power System Design

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and Simulation using DigSIELNT PowerFactory Software: on 26th June 2023.

- **Ms. Pushpanjali S Hota** attended Online one day FDP on “FDP on Microgrid System Design & Simulation using HOMER Pro & HOMER Grid Software” 28th June 2023.
- **Ms. Pushpanjali S Hota** attended Online one day FDP on “Automation System Design & Simulation using Automation Studio Software” 30th June 2023.

Collaborations and MoUs:

- **Pushpanjali s Hota** initiated collaboration and MoU with Adani power Raigarh, for corporate training is now finalized and handed this matter to CCET Dr Mahesh Bhiwapurkar.
- **Pushpanjali S Hota** initiated collaboration and MoU with TRN energy Pvt. Ltd for campus placement from TRN for chemistry, personnel matters are handed over to CDC, OPJU.

Awards/Honours:

- **Dr G Madhusudhana Rao** received **Best Paper award** in the conference ERSEM held during 19th and 20th May 2023 held at SRIT Poddatur, A.P.
- **Dr Ankireddy Narendra** received **Best Presentation award** in the conference ERSEM held during 19th and 20th May 2023 held at SRIT Poddatur, A.P.
- Dr [Sushree Diptimayee Swain](#) received **Best Paper Award** in the conference ERSEM held during 19th and 20th May 2023, SRIT Poddatur, A.P.
- **Dr Ankireddy Narendra** received PhD Degree from NIT Rorkela on 17-05-2023
- **Dr Prashata Kumar Jena** received PhD Degree from NIT Raipur on 28-06-2023

Patent:

- 1) **Prof. Shashikant Kaushaley** has been granted a south African design patent on “A SYSTEM FOR PROVIDING CYBER SECURITY BY IMPROVED PREDICTIVE POTENTIAL OF MACHINE LEARNING AND METHOD THEREOF”, on 26th April 2023.
- 2) Dr. R. D. Patidar, Dr. Shashikant Kaushaley, Mr. Rakesh Patidar and Mr. Kapil Nashine has been granted a design patent on “ELECTRIC VEHICLE HEAD LIGHT CONSOLE”, on 16/05/2023.

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Training Sessions conducted by the Center for Corporate Education and Training (CCET):

	Party	Title of the Training	Training From	Conducted By	Days	No. of participant

- **Upgradation in infrastructure:**
 - The establishment of a research Lab in EE dept has been completed and Budget for the Research lab equipment has been submitted
 - The **establishment of SOLAR Power Plant in the OPJU campus and installation is in progress 75KW.**
 - Reviewed and verified the earthing problem in the campus and the quotations have been submitted to purchase committee
 - Submitted a Proposal for conversion of conventional street light into LED street light in the OPJU campus.
 - Successfully installed 4 sensor based lights at ground floor in new building for energy management in the campus

Appointments:

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Important activities conducted by Department/ Expert Lecture Delivered:

- An Expert talk delivered by **Dr. G MadhusudhanaRao** to the students of Mandsaur University, Mandsaur (M. P.) on “**Fundamentals of IoT**” on 02 May 2023 as a part of MoU activity.
- An Expert talk delivered by **Dr. Ankireddy Narendra** to the students of Mandsaur University, Mandsaur (M. P.) on “**How to Write a Research Paper using Different Tools**” on 14 June 2023 in the MoU activity.
- **NSS Outreach Program** has been conducted on 08 May 2023 with Blind School at Imlidhi, Raigarh

Placement drives and Internships:

Total 8 students got Internships

1. Nishanth Anand	JSW
2. Sonu Kumar	SAIL
3. Ankit	Tata Steel
4. Harimadhav	IOCL
5. Ashish	Tata Steel
6. Himanshu	Tata Steel
7. Rounak Agarwal	Tata Steel
8. Sivam Panday	TP Western Odisha Distribution Lrd
9. Alwin Ailen	Madhyanchal Vidyut Vitrna Nigam Ltd
10. Aman Rathod	Tata Steel

Important Projects:

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- Industrial Visit/ Training:**

SL No	Course	Semester	Title of the Training	Training From	Industry	Days	No. of Students
1	Industrial Training	IV Sem Diploma	Industrial training on Power System	15 th – 29 th May 2023	JPL	15 days	1 Month
2	Industrial Training	IV Sem B Tech	Industrial training on Power System Protection	15 th – 29 th May 2023	Nalwa Steel Plant	15 days	1 Month
3	Industrial Training	VII Sem B Tech	Industrial training on Distribution System	2 nd – 14 th May 2023	Dongamo Mining Area	15 days	15