



MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE
(UGC-AUTONOMOUS)



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Recognised Research Center, Accredited by NBA, NAAC for CSE, ECE, EEE, ME & MBA
World Bank Funded Institute, Recognised by UGC under the sections 2(f) and 12(B) of the UGC act1956
Recognised as Scientific & Industrial Research Organization by DSIR of DST

Department of Electronics and Communication Engineering

Faculty Achievements (Academic Year 2020- 2021)

List of Paper Publications:

The faculties who have published papers in various International Journals during the academic year 2020-2021 are listed below:

S.No.	Title of paper	Name of the author/s	Name of journal	Year of publication	ISSN number	Link of the recognition in UGC enlistment of the Journal, DOI	Impact factor	Citations
1.	Network Blueprint for Maximizing the Lifetime of Smart Devices in Low power IoT Networks	P. Sarwesh , k. Chandrasekaran, S. Thamizarasan	International Journal of Grid and High Performane Computing	Jul-2020	290619-123646	10.4018/IJGHPC.2021040102	1.52	0
2.	PEP and OP examination of relaying network over time-selective fading channel	RAVI SHANKAR, R K MISHRA	SN Applied Sciences	Jul-2020	2523-3971	https://doi.org/10.1007/s42452-020-3077-5	1.00 ESCI	4
	Examination of Non-Orthogonal Multiple Access		Journal of Defence Modelling and			https://doi.org/10.1177/1548512920951277	SNIP	

3.	Scheme for Next Generation Wireless Networks	Ravi Shankar	Simulation: Applications methodology Technology, Sage Publications	Sep-2020	1548-5129		0.877	2
4.	Novel Time- Domain Parameters for Detection and Classification of Flaws Using Pulsed Eddy Current Technique	Rao, KS Beatriceveena, TV Angani, CS Agarwal, L	Journal of Magnetics	Sept-2020	1226-1750	10.4283/JMAG.2020.25.3.434	0.48	0
5.	Leaf Image Analysis Based Crop Diseases Classification	Yashwant Kurmi, Suchi Gangwar, Dheeraj Agrawal, Satrugan Kumar & Hari Shanker Srivastava	Signal, Image and Video Processing, SPRINGER	Oct-2020	15:589–597	https://doi.org/10.1007/s11760-020-01780-7	1.794	1
6.	Design and analysis of Yb doped ZnO (YZO) and P-Si bilayer nano- stacked reflector for optical filter applications	Agarwal, L Singh, R Varshney, G Sambasiva Rao K Tripathi, S	Super Lattices And Microstructu res	Oct-2020	0749-6036	10.1016/j.spmi.2020.106670	2.12	0
7.	High-Efficiency Solar Cells with a Planar Nanostructure Junction	Sambasiva Rao K & Lucky Agarwal	Nanomedicine & Nanotechnology Open Access (NNOA)	Nov-20	ISSN:25 74-187X	10.23880/nnoa-16000202	Other 1.56	0
8.	Investigation of low-density parity check code concatenated multi- user massive multiple-input multiple-output systems with imperfect channel state information	Bhardwaj, Lokesh & Mishra, Ritesh & Shankar, Ravi.	Journal of Defence Modelling and Simulation: Applications methodology Technology Sage Publications	Nov-2020	1548-5129	https://doi.org/10.1177/1548512920968639	SNIP 0.877	2

9.	Intense Pulse Light Annealing of Perovskite Photovoltaics Using Gradient Flashes	Amir H. Ghahremani, Sahar Pishgar, Jitendra Bahadur, and Thad Druffel	ACS Applied Energy Materials	Dec-2020	11641–11654	10.1021/acsaem.0c01520	4.47	0
10.	High Resolution Optical-to-SAR Image Registration Using Mutual Information and SPSA Optimization	Sourabh Paul and Umesh C. Pati	IET Image Processing	Dec-2020	NA	https://doi.org/10.1049/ipr2.12107	1.995	0
11.	Handover Count Based MAP Estimation of Velocity with Prior Distribution Approximated via NGSIM	Ravi Tiwari and Siddharth Deshmukh	IEEE Transactions on Intelligent Transportati on Systems	Jan-2021	1524-9050	10.1109/TITS.2020.3043888	6.319	0
12.	Sum rate capacity of non-orthogonal multiple access scheme with optimal power allocation	Bhardwaj, Lokesh & Mishra, Ritesh & Shankar, Ravi.	Journal of Defence Modelling and Simulation: Applications methodology Technology, Sage Publications	Jan-2021	1548-5129	https://doi.org/10.1177/1548512920983531	SNIP 0.877	0
13.	Deep Reinforcement Learning based Optimal Channel Selection for Cognitive Radio VANET	R. Pal, N. Gupta, A. Prakash, R. Tripathi and JJPC Rodrigues	IET Communicat ions	Jan-2021	1751-8636	10.1049/iet-com.2020.0451.	1.664	0
14.	Selection of overlapping interactions through approximate decentralised fixed mode measure	Pradosh Ranjan Sahoo, Abhilash Patel, Sandip Ghosh & Asim K. Naskar	International Journal of Systems Science	Jan-2021	0020-7721	10.1080/00207721.2021.1872115.	NA	2

15.	A Tutorial on Cooperative Non- Orthogonal Multiple Access Network	Shankar, Ravi & Chaudhary, Bhanu & Mishra, Ritesh.	The Journal of Defence Modelling & Simulation.	Feb-2021	NA	https://doi.org/10.1177/1548512920986627	SNIP 0.877	0
16.	Analysis of NOMA-OFDM 5G Wireless System Using Deep Neural Network	Sharnil Pandya, Manoj Ashok Wakchaure, Ravi Shankar, Jagadeeswara Rao Annam.	Journal of Defence Modelling and Simulation: Applications methodology Technology, Sage Publications	Mar-2021	1548-5129	https://doi.org/10.1177/1548512921999108	SNIP 0.877	1
17.	Channel Capacity Analysis of NOMA and Massive MIMO Wireless Communication Network Considering Perfect“and Imperfect Channel State Information”.	Ravi Shankar, Shovon Nandi, Ajay Rupani,	Journal of Defence Modelling and Simulation:Applications methodology Technology, Sage Publications.	Mar-2021	1548-5129	https://doi.org/10.1177/15485129211000139	SNIP 0.877	0
18.	Structural and Electrochemical properties of GO/Mn3O4 nanocomposite	A. Chauhan, S. Naseem, J. Bahadur, B.R. Singh, M. Shoeb, S. Husain, W. Khan	Journal of Materials Science: Materials in Electronics	Mar-2021	0957-4522	https://doi.org/10.1007/s10854-020-05132-6	2.2	0
19.	Performance assessment of orthogonal space- time block codes in Nakagami-m/inverse Gaussian fading MIMO channels	Bibhuti Bhusan Pradhan, Lakshi Prosad Roy, Dheeren Ku Mahapatra	IET Communicat ions	Mar-2021	1751-8628	https://doi.org/10.1049/cmu2.12166	3.3	0
20.	Design of Low Power, Variation Tolerant Single Bitline 9T SRAM Cell in 16-nm Technology in Subthreshold Region	Chandramaulesh war Roy, Aminul Islam	Microelectro nics Reliability	May-2021	0026-2714	https://doi.org/10.1016/j.microrel.2021.114126	1.535	0

List of Faculties who have successfully completed Mooc's Courses (FDPs):

The faculties who have successfully completed Swayam NPTEL courses as faculty development Programme during the academic year 2020-2021 are listed below:

S.No.	Session	Name of the Faculty Member	Name of the NPTEL Course	Duration in No. of Weeks	Equivalence of NPTEL course with regular FDP
1	July - Dec 2020	Dr. REMASHAN KARIYADAN	Integrated Circuits, MOSFETs, OP-Amps and their applications	04 Weeks	0.5
2	July - Dec 2020	Dr. REMASHAN KARIYADAN	Fundamentals of electronic device fabrication	04 Weeks	0.5
3	July - Dec 2020	Dr. K. SATHESH	Matlab Programing for Numerical Computation	08 Weeks	1
4	July - Dec 2020	Dr. K.SATHESH	Introduction to Research	08 Weeks	1
5	July - Dec 2020	Dr. JITENDRA BAHADUR	Structural Analysis of Nanomaterials	04 Weeks	0.5
6	July - Dec 2020	Dr.SHARWAN RAM	Digital Image Processing	12 weeks	1.5
7	July - Dec 2020	Dr. PRASHANT UPDADYAY	Microprocessors and Microcontrollers	08 Weeks	1
8	July - Dec 2020	Dr. REMASHAN KARIYADAN	Semiconductor Devices and Circuits	12 weeks	1.5
9	July - Dec 2020	Dr. SAMBHUDUTTA NANDA	Introduction to Research	08 Weeks	1
10	July - Dec 2020	Dr. P RAMANATHAN	Switching Circuits and Logic Design	12 weeks	1.5
11	July - Dec 2020	Ms. AKSHATHA S	Developing Soft Skills and Personality	08 Weeks	1
12	July - Dec 2020	Mr.NAVANEETHAKRISHNAN	Developing Soft Skills and Personality	08 Weeks	1

List of Faculties who are among top 1%/2%/5% in Swayam NPTEL courses (FDPs)

The faculties who are among top 1%/2%/5% in Swayam NPTEL courses (Faculty Development Programme) during the academic year 2020-2021 are listed below:

S.No.	Academic Year	Name of the Faculty Member	Name of the NPTEL Course	Topper (1 % / 2% / 5 %)
1	July - Dec 2020	Dr. Remashan Kariyadan	Fundamentals of electronic device fabrication	Topper of this course
2	July - Dec 2020	Dr Remashan Kariyadan	Semiconductor Devices and Circuits	Topper of 2% in this course
3	Jan - Mar 2021	Dr. P Ramanathan	Embedded System Design with ARM	Topper of 5% in this course
4	Jan - Mar 2021	Dr.Veeraiyah Thangasamy	Embedded System Design with ARM	Topper of 5% in this course

List of Workshops organized

S. No	Date	Topic	Resource Person Name and Address	Organizer Name
1.	20th to 23rd April, 2021	Three Days workshop on "Dynamic System Modelling and Signal Processing with MATLAB / Simulink"	Mr. J Prem Kumar, Product Manager for MathWorks Products in Capricot Technologies Private Limited.	Department of Electronics & Communication Engineering

List of Guest Lectures and Webinars:

Date	Topic	Resource Person Name and Address	Organizer Name
29 th June, 2020	One day webinar on “The Art of Learning Semiconductor Devices: p-n Junctions, MOSFETs and memristors!”	Dr. Rupam Goswami, Assistant Professor, Department of Electronics and Communication Engineering, Tezpur University.	Department of Electronics & Communication Engineering
30 th June, 2020	One day webinar on “Evolution of Wireless Communication”	Dr. Wasim Arif, Assistant Professor in the dept. of Electronics and Communication Engineering, National Institute of Technology Silchar	Department of Electronics & Communication Engineering
1 st July, 2020	One day webinar on “The 5G Revolution: Use Case & Enabling Technology Walkthrough”	Dr. Shankar Duraikannan, Research Coordinator and Senior Lecturer in School of Engineering, Asia Pacific University, Malaysia	Department of Electronics & Communication Engineering
4 th July, 2020	One day webinar on “Application of Machine Learning in Electronics and Communication	Dr. Shivalal Patro, Assistant Professor School of Electronics Engineering, Campus-12, KIIT, Odisha	Department of Electronics & Communication Engineering
6 th July, 2020	One day webinar on “IoT Skills needed in Today's Developer Ecosystem”	Mr. Kondi Shrivankumar, Senior Software Engineer for IoT Embedded Devices, Qualcomm, Hyderabad.	Department of Electronics & Communication Engineering
7 th July, 2020	One day webinar on an WBINAR on Making a Technical Presentation	Prof Rabindra Kishore Mishra, Department of Electronic Science and Technology, Berhampur University	Department of Electronics & Communication Engineering
8 th July, 2020	One day webinar on “Non Idealities in Short Channel MOS Devices”	Dr. Satyendra Maurya, Assistant Professor at Birla Institute of Technology and Science Pilani INDIA.	Department of Electronics & Communication Engineering

18 th July, 2020	One day webinar on “Augmented Reality”	Mr. Soumyakanta Mohanty, Managing Director, “Thought Spheres Technologies Pvt. Ltd.	Department of Electronics & Communication Engineering
20 th July, 2020	One day webinar on “Analytical Modelling and Simulation of Non-Conventional MOSFETs”	Dr. Gopi Krishna Saramekala, Assistant Professor, NIT Calicut.	Department of Electronics & Communication Engineering
3 rd August, 2020	One day webinar on “BIO INSPIRED Machines and Products Innovations: What can an ECE Professional Learn to Emulate from Nature ”.	Mr. A T Kishore, CEO, Vidhya Sanga Technologies Pvt. Ltd, Bangalore.	Department of Electronics & Communication Engineering
13 th August, 2020	Guest Lecture on Future technologies for Engineers	Mr. Sidharth, Assistant professor, Ranganathan college of Engineering, Coimbatore.	Department of Electronics & Communication Engineering
14 th August, 2020	One day international webinar on "Artificial Intelligence - An Introduction".	Dr. Sourav Shrivasta, a Visiting Researcher at University of Aizu, Japan.	Department of Electronics & Communication Engineering
14 th August, 2020	One day webinar on “Career goals and what industry expectations freshers”	Mangayarakarasi Arumugam, Alumni of PSG tech ECE	Department of Electronics & Communication Engineering
5 th January, 2021	One day Guest Lecture on Signals in Frequency Domain: Representation, Analysis and Applications.	Dr Mohiul Islam (Assistant Professor), CMR College of Engineering & Technology, Hyderabad, in the Dept. of Electronics and Communication Engineering	Department of Electronics & Communication Engineering
20 th February 2021	One Day International Seminar on "Recent Advances in Nonvolatile Memory for High-end Applications".	Dr. Sreekanth Ginnaram, Post Doctoral Researcher, Advanced Device Group, National Chung Hsing University, Taiwan and Dr. Pranab Kumar Sarkar, Asst. Professor (Physics) and Head (i/c) , Deptment of Applied Science and Humanities, Triguna Sen School of	Department of Electronics & Communication Engineering

		Technology, Assam University	
24th March, 2021	International webinar on Electronic and Transport Properties of Two-dimensional Transition Metal Carbides and Carbonitrides (MXenes)	Mr. Kanit Hantanasirisakul, pursuing PhD at Department of Materials Science and Engineering Drexel University, Philadelphia, USA	Department of Electronics & Communication Engineering
2 nd May, 2021	One day Guest Lecture on Fundamentals of Engineering Python	Manas Ranjan Biswal, Research student at Pukyong National University, Busan, South Korea.	Department of Electronics & Communication Engineering
16th May, 2021.	Technical Lecture on "Metasurfaces for Transforming Microwave Antenna Performance"	Dr. Rajanikanta Swain, Senior RF Engineer (Antenna Design) at VVDN Technologies	Department of Electronics & Communication Engineering
13th June, 2021	One Day Webinar on "Industry 4.0 and its impacts".	Mr. Sangram Patnaik, power plant instrumentation incharge at Bilt Graphics Paper Product Limited and Mr. Chandan Kumar, 9 years' experience in industrial automation	Department of Electronics & Communication Engineering