



**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE**  
(UGC-AUTONOMOUS INSTITUTION)

Affiliated to JNTUA, Ananthapuramu & Approved by AICTE, New Delhi  
NAAC Accredited with A+ Grade, NIRF India Rankings 2021 - Band: 201-250 (Engg.)  
NBA Accredited - B.Tech. (CIVIL, CSE, ECE, EEE, MECH), MBA & MCA



### Paper Publications

The faculties who have published papers in various International Journals during the academic year 2021-2022 are listed below:

S.No.	Name of the author/s	Title of the paper	Name of journals/Book	VolumeNo/ Issue No/ Page No/ Month/Year	DOI/ISSN number	Publisher/ Indexing	Impact factor	Citati ons
<b>JOURNALS</b>								
1.	R Saha, Y Hirpara, S Hoque	Sensitivity Analysis on Dielectric Modulated Ge- source DMDG TFET Based Label-Free Biosensor	IEEE Transactions on Nano Technology	pp. 552-560 July - 2021	10.1109/TNA NO.20213093 9271536-125X	SCI	2.57	1
2.	Sumit Gupta	Design of non-mapping code in spectral and special domain with variable weight and OFDM system	Optical and Quantum Electronics	Vo. 1,pp.1-19 July-2021	<a href="https://doi.org/10.1007/s11082-021-03004-9">https://doi.org/ 10.1007/s1108 2-021-03004-9 0306-8919</a>	SCI	2.084	1

3.	Sharnil Pandya Patteti Krishna Ravi Shankar and Ankur Singh Bist	Examination of the fifth-generation vehicular simultaneous wireless information and power transfer cooperative non-orthogonal multiple access network in military scenarios considering time-varying and imperfect channel state information conditions	Journal of Defence Modelling and Simulation: Applications, Methodology, Technology	Vo. 1, pp. 1-15 Aug-2021	doi/10.1177/15485129211033040	Scopus	0.655 (SNIP)	0
4.	Ravi Shankar Patteti Krishna, Naraiah R	Examination of the multiple-input multiple-output space-time block-code selective decode and forward relaying protocol over non-homogeneous fading channel conditions	Journal of Defence Modelling and Simulation: Applications, Methodology, Technology	Vol. 1, pp. 1-13 Sep- 2021	doi/10.1177/154851292110475981548-5129	Scopus	0.655(SNIP)	1
5.	Ravi Shankar, B K Sarojini, A Suresh Kumar, Rahul Neware, Ankur Singh Bist <sup>6</sup>	Impact of the learning rate and batch size on NOMA system using LSTM-based deep neural network	Journal of Defence Modelling and Simulation: Applications, Methodology, Technology	Oct.- 2021	<a href="https://doi.org/10.1177/154851292110497821548-5129">https://doi.org/10.1177/154851292110497821548-5129</a>	Scopus	0.655(SNIP)	1

6.	Shankar, R., Ramana, T.V., Singh, P., Gupta, S., Mehraj, H.	Examination of the Non-Orthogonal Multiple Access System Using Long Short Memory Based Deep Neural Network	Journal of Mobile Multimedia	Vo. 18(2), pp. 451–474 Nov. 2021	<a href="https://doi.org/10.13052/jmm15504646.182141550-4654">https://doi.org/10.13052/jmm15504646.182141550-4654</a>	Scopus	-	1
7.	Jyoti P. Patra, Bibhuti Bhusan Pradhan and Poonam Singh	A Low Complexity Optimal LMMSE Channel Estimator for OFDM System	Journal of Communication Software and System	Vol. 17, No.4, pp.321-325 Dec-2021	10.24138/jcomss-2021-004218456421	Croatian Communications and Information Society Scopus	1.04	0
8.	Shankar, R., Raghava Raman, V.V., Rane, K.P., Sarojini, B.K., Neware, R.	An Investigation of the MIMO Space Time Block Code Based Selective Decode and Forward Relaying Network over $\eta$ - $\mu$ Fading Channel Conditions	Journal of Telecommunications and Information Technology	1, pp. 79–92 Jan. 2022	<a href="https://doi.org/10.26636/jtit.2022.150421">https://doi.org/10.26636/jtit.2022.150421</a>	Scopus	-	0
9.	Sumit Gupta, Aditya Goel	Design and analysis of three-dimensional m-sequence bipolar OCDMA spectral amplitude code	Optical and Quantum Electronics	Vol. 54, No.3, pp. 1-17 Jan-22	10.1007/s11082-022-03529-7	SCI	2.084	0
10.	J. Borah, S. Baruah, T. A. Sheikh, and S. Roy	Miniaturization and Optimization of FR4 Based CPW-fed Antenna for Multiband Applications	Radio electronics and Communications Systems	Vol. 64, No. 12, pp. 660–668 Feb-2022	Doi.org/10.3103/S07352727211200490735-2727	Scopus	0.51 (SNIP)	0

11.	S. Hussain	Resolution-Selective and Resolution-Adaptive 2 to 8-Bit Flash ADC for High-Speed Application-Independent	Journal of Circuits, Systems, and Computers	Vol. 31, No. 9 2250169 March -2022	DOI: 10.1142/S0218 126622501699	SCI		0
12.	Smriti Baruah, Janmoni Borah, Joyatri Bora, Santanu Maity.	Optical modelling of a GaAs/GaSb core-shell cone-topped octagonal-faced nanopillar array with periodic trapezoidal textured cut for high photon trapping efficiency	Journal of Computational Electronics	June 2022	<a href="https://doi.org/10.1007/s10825-022-01898-6">https://doi.org/10.1007/s10825-022-01898-6</a>	SCI	1.983	0
13.	S. Rajkumar, K. Sathesh, Bayisa Taye Mulatu.	Chip Layout for Adaptive Line Enhancer Design using Adaptive Filtering Algorithms and Metrics Computation for Auscultation Signal Separation	Journal Of Beijing Institute Of Technology	Vol. 31, No. 3, pp. 317-326 June-2022	doi: 10.15918/j.jbit 10040579.202 1.102 ISSN: 1004-0579	Editorial Department of Journal of Beijing Institute of Technology EI; Scopus	-	0
14.	Soumya Ranjan Mahapatra and Bidyadhar Subudhi	Disturbance rejection –based robust decentralized controller design for a multivariable system (Q:1)	Transection of the institute of Measurement and control	July 2022	DOI: 10.1177/01423 312221114348	SCI		0
15.	Imaculate Rosaline, Arvind Kumar , Prashant Upadhyay, and Abu Hena Murshed	Four Element MIMO Antenna Systems with Decoupling Lines for High-Speed 5G Wireless Data Communication	International Journal of Antennas and Propagation	Vol. 2022 June 2022	doi.org/10.1155/2022/9078929	SCI	1.347	0

**CONFERENCES**

<b>S.No.</b>	<b>Name of the author/s</b>	<b>Title of the paper</b>	<b>Name of the Conference</b>	<b>Volume No/Issue No/Page No/Month/Year</b>	<b>DOI/ISSN number</b>	<b>Publisher/ Indexing</b>
1	Thangasamy, V., Singh, I., & Sai, J.	Analysis of Capacity and Outage Probability for NOMA based Cellular Communication over Rician Fading Channel	2022 First International Conference on Electrical, Electronics, Information and Communication Technologies (ICEEICT)	Feb 2022 pp. 1-5	DOI: 10.1109/ICEEI CT53079.2022. 9768575	IEEE Scopus
2	Shilpi, Prateek Raj Gautam, Sunil Kumar and Arvind kumar	A Comparative Analysis of Distance-based Node Localization in Wireless Sensor Network		Oct-2021	DOI: 10.1109/SPIN5 2536.2021.9566 136	IEEE Scopus
3	Dr. Velmani Ramasamy , Dr G Mohan Babu	Digital Signal Processing (Text Book)		2021		
4	JN Swaminathan, Ramesh Kumar	Analysis of ECG signal processing for medical Technologies	6th International conference on Information and Communication Technology	2021		Springer Scopus

### 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 2021-2022 are listed below:

S.No	Name of the Faculty	Name of the NPTEL Course	No. of Weeks	Marks %	Type of Certificate
1	Dr. Remashan Kariyadan	1. Solar Photovoltaics: Principles, Technologies & Materials	8	87	Elite+Silver
2	Dr. P. Ramanathan	1. Computer Networks and Internet Protocol	12	90	Elite+Gold
		2. Graph Theory	8	92	Elite+Gold
		3. The Joy of Computing using Python	12	93	Elite+Gold
		4. Programming Data Structures and Algorithms	12	83	Elite+Gold
3	Dr. Gajendra Sharma	1. Introduction to Programming in C	8	69	Elite

4	Dr. Veeraiyah Thangasamy	1. Problem solving through Programming in C	12	76	Elite+Silver
5	Dr. K. Sathesh	1. Enhancing Soft Skills and Personality	8	75	Elite+Silver
6	Dr. Jyoti Prasanna Patra	1. Evolution Of Air Interface Towards 5G	8	90	Elite+Gold
7	Dr. Sumit Gupta	1. Introduction to Internet of things	12	55	Successfully Completed
8	Dr. Prashant Upadhyay	1. Computer Architecture	12	81	Elite+Silver
9	Dr. Dheeren Ku Mahapatra	1. Python for Data Science	4	83	Elite+Silver
10	Dr. Ravi Shankar	1. Principles of Communication Systems – I	12	91	Elite+Gold
11	Dr. Sambhudutta Nanda	1. Python for Data Science	4	64	Elite
12	Dr. Velmani Ramasamy	1. Introduction to Internet of things	12	76	Elite+Silver
13	Dr. Rekib Uddin Ahmed	1. Analog IC Design	12	45	Successfully Completed

14	Dr. Sarfraz Hussain	1. CMOS Digital VLSI Design	8	77	Elite+Silver
15	Mr. T. Manivannan	1. Computer Architecture	12	60	Elite
16	Mr. J. Anand	1. Computer Architecture	12	53	Successfully Completed
17	Mr. G. Mahammed Rafi	1. Computer Architecture	12	81	Elite+Silver
18	Mr. V. Navaneetha Krishnan	1. Computer Architecture	12	69	Elite
19	Mr. Bhushan Vikas Mali	1. Computer Architecture	12	58	Successfully Completed
20	Mr. M. Vamsi Krishna	1. Computer Architecture	12	76	Elite+Silver
21	Mr. B. Subbarayudu	1. Soft Skill Development	8	60	Elite
22	Mr. V. Prakash Kumar	1. Computer Networks and Internet Protocol	12	57	Successfully Completed
23	Mr. E. Sathiyarayanan	1. NBA Accreditation and Teaching and learning in Engineering (NATE)	12	65	Elite



24	Mr. P. Murali	1. NBA Accreditation and Teaching and learning in Engineering (NATE)	12	72	Elite
25	Dr. Janmoni Borah	1. Fundamentals of MIMO wireless Communication	8	57	Successfully Completed
26	Ms. Smriti Baruah	1. Physics of Nanoscale devices	12	51	Successfully Completed

### 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 2021-2022 are listed below:

S.No.	Academic Year	Name of the Faculty Member	Name of the NPTEL Course	Topper (1 % / 2% / 5 %)
1	July - Dec 2021	Dr. P Ramanathan	Multi Core Computer Architecture Storage and Interconnects - online	Topper of 2% in this course
2	July - Dec 2021	Dr. Jyoti Prasanna Patra	Principles of Modern CDMA/MIMO/OFDM Wireless Communications	Topper of 1% in this course
3	July - Dec 2021	Mr. P.Murali	System Design Through VERILOG	Topper in this course
4	July - Dec 2021	Dr. Sourabh Paul	Pattern Recognition and Application	Topper of 2% in this course
5	Jan - Apr 2022	Dr. P Ramanathan	Graph Theory	Topper of 2% in this course
6	Jan - Apr 2022	Dr. Remeshan Kariyadan	Solar Photovoltaics: Principles, Technologies & Materials	Topper in this course
7	Jan - Apr 2022	Dheeren Ku Mahapatra	Python for Data Science	Topper of 5% in this course
8	Jan - Apr 2022	Dr. Jyoti Prasanna Patra	Evolution of Air Interface Towards 5G	Topper of 2% in this course
9	Jan - Apr 2022	Dr. P Ramanathan	Computer Networks and Internet Protocol	Topper of 2% in this course
10	Jan - Apr 2022	Dr. P Ramanathan	The Joy of Computing using Python	Topper of 2% in this course

11	Jan - Apr 2022	Dr. PRASHANT UPADHYAY	Computer Architecture	Topper of 2% in this course
12	Jan - Apr 2022	Dr. VELMANI RAMASAMY	Introduction To Internet Of Things	Topper of 1% in this course
13	Jan - Apr 2022	Mr. MAHAMMED RAFI GANGUPALLI	Computer Architecture	Topper of 2% in this course
14	Jan - Apr 2022	Mr. V Vamsi Krishna Muvvala	Computer Architecture	Topper of 5% in this course

## List of Workshops organized

The list of workshops conducted in the academic year 2021-2022 along with the event details is mentioned in the table below:

S.No	Name of event	Event date	Convener/ coordinator	Speaker details
1	Modeling, Simulation, and Fabrication of Emerging Electron Devices and Circuits	28/09/2021- 29/09/2021	Dr. Upendra Verma	<ol style="list-style-type: none"> <li>1. Er. Anil Kumar Sharma (Managing Director, Impulse Technology)</li> <li>2. Dr. Sandip Paul Choudhury (Assistant Professor, NIT Nagaland)</li> <li>3. Dr. Aminul Islam (Associate Professor, Dept. of ECE, BIT Mesra)</li> </ol>
2	Emerging Trends in Electronics and Communication Engineering	29/10/2021- 30/10/2021	Dr. Sourabh Paul	<ol style="list-style-type: none"> <li>1. Dr. Debi Prasad Das( principal scientist, IIMT, CSIR lab, Bhubaneswar)</li> <li>2. Mr. A. Nagaraju, Senior Scientist, CSIR-CEERI</li> <li>3. Mr Udaya Kumar Sahoo, ( Research Scientist ISRO)</li> </ol>
3	Future Opportunities and Challenges in 5G Technology (FOC-5G)	13/10/2021 – 17/10/2021	Dr. Tasher Ali Sheikh	<ol style="list-style-type: none"> <li>1. Dr. Özlem Tugfe Demir, (PDF ,KTH Royal Institute of Technology, Sweden)</li> <li>2. Dr. Saif Khan (Associate Professor, Electrical Engineering, IIT Delhi)</li> <li>3. Dr. Sudarshan (Assistant Professor, Department of Electronics and Electrical Engineering, IIT Guwahati)</li> </ol>
4	Emerging Topics on Instrumentation, Electronics and Communications	27/10/2021- 31/10/2021	Dr. Pradush Ranjan Mahapatra	<ol style="list-style-type: none"> <li>1. Dr. Ritesh Kumar Mishra, Associate Professor, Department of ECE, NIT, Patna.</li> </ol>

				2. Dr. Bikash Chandra Sahana, (Assistant Professor, Department of ECE, NIT, Patna)
5	The Art of Patenting and Drafting	25/04/2022- 29/04/2022	Dr. M. Mahesh	1. Dr. M. Kantha Babu, Ph.D, Director, Centre for Intellectual Property Rights (CIPR), College of Engineering Guindy. 2. Mr. M. Ravi Sankar, Assistant Controller of Patents, Indian Patent Office, Chennai
6	Engineering Signal Processing and Communication Systems with FPGA	25.07.2022 - 29.07.2022	Dr. M. Mahesh Dr. Sambhudutta Nanda	Dr. Satya Sai Srinivas, Director, ATRIEL India Private Limited, Karikal.

## List of Guest Lectures and Seminars

The list of Guest lectures and seminars conducted in the academic year 2021-2022 along with the event details is mentioned in the table below:

Sl. No.	Name of event	Event date	Convener/ coordinator	Speaker details
1	Research: Fuel for Better carrier	05/10/2021	Dr. Soumya Ranjan Mahapatra	Dr. Durgesh Nandan, Senior Member IEEE, ( Assistant Professor), ECE, Symbiosis International University, Pune, Maharashtra)
2	Post-graduation in the domain of semiconductors and its career opportunities across Taiwan	19/02/2022	Dr. Pradush Ranjan Mahapatra	Mr. Manoj Kumar Reddy, (Alumni of Dept. of ECE, MITS, Pursuing Ph.D., Asia University, Taiwan)