

**DEPARTMENT OF ECE**

**A HALF-YEARLY NEWSLETTER**

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**ADITYA**

**Institute of Technology and Management**  
**(An autonomous institution)**

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# **ADVITYA 2K22**

## **ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI (AUTONOMOUS)**

### **Department of Electronic and Communication Engineering**

#### **Vision of the Institute:**

To evolve into a premier engineering institute in the country by continuously enhancing the range of our competencies, expanding the gamut of our activities and extending the frontiers of our operations.

#### **Mission of the Institute:**

Synergizing knowledge, technology and human resource, we impart the best quality education in Technology and Management. In the process, we make education more objective so that the efficiency for employability increases on a continued basis.

#### **Vision of the Department:**

Create high-quality engineering professionals through research, innovation and teamwork for a lasting technology development in the area of Electronics and Communication Engineering.

#### **Mission of the Department:**

1. To offer a well-balanced Program of instruction, lab practices, research & development activities, product incubation.
2. Develop accomplished technical personnel with a strong background on fundamental and advanced concepts, have excellent professional conduct.
3. Enhance overall personality development which includes innovative and group work exercises, entrepreneur skills, communication skills and employability.
4. Ensuring effective teaching–learning process to provide in-depth knowledge of principles and its applications pertaining to Electronics & Communication Engineering and interdisciplinary areas.
5. Providing industry and department interactions through consultancy and sponsored research.

### **Message from Dr. K. Someswara Rao, CHAIRMAN**



At AITAM, we are committed to excellence in everything we do. We strive to mould the students in balancing intellectual and practical skills to become leaders in all the fields of Technical know-how and Management. We have created the finest facilities for the students to make the most of their scholastic pursuits. We are closely aligned with the corporate world which ensures exchange of ideas and experiences that keep our curricula focussed on current developments and challenges in the field of engineering. We are firmly committed to research and consulting activities to contribute to the development of the discipline of engineering. Our vitality lies in our spirit of innovation. Our strength lies in our pragmatic approach. Our success lies in our will to do.

### **Message Sri L.L. Naidu, SECRETARY**



Aditya Institute of Technology and Management is founded to meet the increasing demand for competent engineering graduates. Within a short span of its inception, AITAM has grown to be a premier engineering college of its kind and has won laurels and kudos from the industry. The faculty and staff in AITAM are dedicated to providing first-class education that instils strong and potent basic knowledge for sound practice in science and engineering for the well-being of the society. The Institute offers curricula that nurtures creative thinking and prepares students for productive and rewarding careers. The Institute offers programmes that deepen learning experiences of our students and prepare them for successful careers as engineers.

### **Message from Prof. V.V. Nageswara Rao, DIRECTOR**



Engineering education at AITAM is indeed a rewarding intellectual experience. The Institute prepares the engineering professionals of tomorrow imbued with insight, imagination and ingenuity to flourish as successful engineers. Our programs are attuned to the needs of the changing times. The classrooms are ultra-modern; the library and labs are cutting-edge; and all the members of the faculty are workaholic professionals and masters in their fields. Not surprisingly, our students are recruited by such renowned organizations as HCL, Satyam, WIPRO, INFOSYS, TCS, Visual Soft, Innova-Solutions and InfoTech. The exceptional dedication of our students, faculty and staff, and our collaborations with Industry and other institutions ensure that the Institute is well-poised to create a unique niche in the horizons of engineering education.

### Message from Dr. A. S. Srinivasa Rao, PRINCIPAL



It is only through knowledge that man attains Prosperity. Prosperity has to expand or grow to become excellence. The road to excellence is toughest, roughest and steepest in the universe. The world requires and honours only excellence. Excellence has to be acquired from wisdom and intelligence to establish innovation. Promotion of innovation is the new role of education. It is only through innovative thinking the present and the future challenges can be addressed to find dynamic solutions. Technology, a part of excellence, is helpful in removing poverty from the world. According to the statistics 40% of the world's poor are in India. Solution to this challenge relies on Technocrats with confidence and self-reliance. AITAM is the pioneering platform for this expected output. The institution mends the students in building character, strengthening mind, expanding intellect and establishing the vision with a new perspective. The student of AITAM is prepared through rigorous training that makes him to stand on his own feet to lead a prosperous career and life.

### Message from Dr. B. RAMA RAO, H.O.D of ECE



Aditya Institute of technology and management (AITAM) is one among the reputed engineering colleges imparting finest quality education. The department of Electronics and Communication Engineering was established in the year 2001. The department has experienced and well qualified faculty members, well equipped laboratories such as Digital Signal Processing Laboratory, Communication and Microwave Engineering Laboratory, VLSI Design Laboratory, Microprocessor Laboratory and Antenna Design/ Simulation Laboratory etc. Our aim is to produce graduates capable of effectively using professional skills with values for betterment of society and to meet the varying demands of industry and research environment. Our department has a fine blend of a team of qualified and experienced faculty. We are committed to give our students an outcome based education through outcome based teaching and learning process which provides them an environment to develop critical thinking and problem-solving skills as they advance through the programme. The faculty and students are associated with memberships of professional bodies such as Institution of Electronics and Telecommunications Engineering (India), Institution of Engineers (India), Indian Society for Technical Education. Our students earned name and fame all over the globe and rendering best of their services to topmost companies. We as a team resolve to take the department to heights of success and prepare our students for future challenges. The activities like Expert Lectures, Site Visits, Technical Events, Sports and Cultural Events, Soft Skills etc widens their horizon and avert them from being monotonous with academics. To conclude, the department catalyzes and assures a very healthy, amicable but a competitive ambience for our future engineers.

## Faculty Achievements

1. Dr.Ch.Rajasekhara Rao, D.V.L.N.Sastry, published a paper titled FEATURE EXTRACTION OF ECG SIGNAL TO EXAMINE THE CARDIAC SEVERITY, International Journal of Advance and Innovative Research, Volume 9, Issue 3 (I): July - September 2022, ISSN: 2394-7780, Peer reviewed.
2. G.S.S.S.V.Krishna Mohan, published a paper title "Design of a speech amplifier with an Integrated Noise cancellation system with Low power and High gain" International Shodhasamhita: Journal of Fundamental & Comparative Research, Vol. VIII, No. 1(XXXIII): 2022, p.p.14-22, ISSN: 2277-7067, UGC.
3. Dr. P. SIRISH KUMAR, published a paper title "GPS Receiver Position Estimation and DOP Analysis Using a New Form of the Observation Matrix Approximations " International Journal of Sensors, HINDAWI, "Volume 2022, pp.1-12", ISSN: 1687-7268, SCIE, <https://downloads.hindawi.com/journals/js/2022/6772077.pdf>
4. Dr. P. SIRISH KUMAR, published a paper title "Absolute Point Positioning Algorithm for Navigation Applications", International Lecture Notes in Electrical Engineering, SPRINGER "vol. 926, pp. 447-461" ISSN: 1876-1119, 978-981-19-4971-5", SCOPUS, [https://link.springer.com/chapter/10.1007/978-981-19-4971-5\\_33](https://link.springer.com/chapter/10.1007/978-981-19-4971-5_33).
5. Dr. P. SIRISH KUMAR, published a paper title The Correntropy Kalman Filter: A Robust Estimator for GPS Applications, International Lecture Notes in Electrical Engineering, SPRINGER "vol. 927, pp.497-512" ISSN:1876-1119, 978-981-19-4975-3" SCOPUS [https://link.springer.com/chapter/10.1007/978-981-19-4975-3\\_40](https://link.springer.com/chapter/10.1007/978-981-19-4975-3_40)
6. Dr. P. SIRISH KUMAR, published a paper title "Performance Interpretation of Navigation Algorithms over 2-Dimensional and 3-Dimensional Surface", International GRADIVA REVIEW JOURNAL, State University of New York "vol.8, no. 12, pp. 384-389" ISSN: 0363-8058 WOS <http://gradivareview.com/gallery/grj%204420.pdf>
7. Dr. P. SIRISH KUMAR, published a paper title "ERROR ANALYSIS FOR GPS RECEIVER POSITIONING UNDER THE CROSS CORRENTROPY" International "GIS Science Journal, Wichmann Verlag vol. 9, pp. 657-662, ISSN:1869-9391 SCOPUS, [https://drive.google.com/file/d/1d60uhfWVRagnl\\_nEOjY40DdwGzTThBNQ/view](https://drive.google.com/file/d/1d60uhfWVRagnl_nEOjY40DdwGzTThBNQ/view).
8. Dr. G. Sateesh Kumar, published a paper title Energy Efficient Underlaid D2D Communication for 5G Applications International Electronics 1. Volume 11, pp 1-13,18th August 2022. SCOPUS <https://doi.org/10.3390/electronics11162587>.
9. Dr.M.S.R.Naidu, published a paper title 3D Brain Tumor Segmentation Using Deep Learning, International Journal of Advance and Innovative Research Volume 8, Issue 6,Pages 1113-1122,July 2022, Web of Science.

10. Dr.M.S.R.Naidu, published a paper titled COVID-19 and Viral Pneumonia Chest X-ray images Classification using a Deep Ensemble based learning Model, International Neuro Quantology, Oct-22, SCOPUS
11. Dr.M.S.R.Naidu, Novel 2-D Histogram-Based Soft Thresholding for Brain Tumor Detection and Image Compression, International Journal of Applied Met heuristic Computing Vol.13.Issue No:1,pp.1-27, Feb 2022, SCOPUS.
12. Lalithabhavani Konkyana, Design and Simulation of Wideband Monopole Microstrip Antenna, International Mathematical Statistician and Engineering Applications, Vol.No.71 , Issue No.4, pp: 7023-7031, August 2022 ISSN:2094-0343, SCOPUS.
13. Dr.K.V.L.Bhavani, Dr.V.Lokesh Raju, Dr.M.S.R.Naidu, A Broadband Meta surface Based MIMO Antenna with High Gain and Isolation For 5G Millimeter Wave Applications, international Journal of Communication Networks and Information Security, Vol no.14 issue 1spp 54-66 December 2022, ISSN: 2073-607X, 2076-0930, SCOPUS.

## **Conferences:**

1. Dr. P. SIRISH KUMAR presented a paper on "Gaussian Distribution of GPS position Errors Recent Advances in Technology and Management", National VEMU Institute of Technology, Chittoor, 14-15th October-2022.
2. Dr. P. SIRISH KUMAR, presented a paper on "Statistical Accuracy Measures Comparison of Kinematic Navigation Algorithms Advancement in Electronics Systems and Communication Technologies" International ANITS, 4-5th November-2022.

## **FDP Attended by the faculty**

1. Smt. Jayalaxmi Anem, Advanced optimization techniques and hands on with MATLAB/SCILAB, NIT Patna, 8-8-22 to 19-8-22.
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3. Sri P.Kameswara Rao, Advanced optimization techniques and hands on with MATLAB/SCILAB, NIT Patna, 8-8-22 to 19-8-22.
4. Smt. J.Swathi, Advanced optimization techniques and hands on with MATLAB/SCILAB, NIT Patna, 8-8-22 to 19-8-22.
5. Dr. G.S.S.S.S.V.Krishna Mohan, IoT based Smart Automation System, MVGR College of Engineering(A), Vizianagaram, 22nd to 27th August, 2022, AICTE.
6. Dr.P.Sirish Kumar, IoT Based Smart Automation System, MVGR College of Engineering (A), 22nd to 27th August, AICTE.

7. Smt. Jayalaxmi Anem, IoT Based Smart Automation System, MVGR College of Engineering (A), 22nd to 27th August, AICTE.
8. Sri P.Kameswara Rao, IoT Based Smart Automation System, MVGR College of Engineering (A), 22nd to 27th August, AICTE.
9. Dr. Ramji Tangudu, IoT Based Smart Automation System, MVGR College of Engineering (A), 22nd to 27th August, AICTE.
10. Smt. E.Jaya, IoT Based Smart Automation System, MVGR College of Engineering (A), 22nd to 27th August, AICTE.
11. Smt. J.Swathi, IoT Based Smart Automation System, MVGR College of Engineering (A), 22nd to 27th August, AICTE.
12. Dr. M.L.Naidu, IoT Based Smart Automation System, MVGR College of Engineering (A), 22nd to 27th August, AICTE.
13. Sri P.Kameswara Rao, Introduction to ML IITM, July-Dec-22
14. Dr. D.Yugandhar, ICT tools and teaching learning pedagogy, GMR IT, 23-8-22 to 27-8-22.
15. Sri Rajendra prasad Kuriti, Level up Language skill for professional development, AITAM 19th to 23rd Sept.
16. Sri Rajendra prasad Kuriti, MATLAB-Artificial Intelligence and Optimisation Techniques, NITTTR Chandigarh, 21st to 25th Nov.
17. Smt. E.Jaya, Embedded system design with ARM, IITM, July-sep-22.
18. Dr. Harihara Santosh Dadi, Deep Learning for Computer Vision, IITM, July-Dec-22.
19. Dr. Harihara Santosh Dadi, Introduction to Machine Learning, IITM, July-Dec-22.
20. Dr. Harihara Santosh Dadi, The Joy of Computing using Python, IITM, July-Dec-22.
21. Dr. Harihara Santosh Dadi, Problem Solving Through Programming In C, IITM, July-Dec-22.
22. Dr. Harihara Santosh Dadi, Python for Data Science, IITM, July-Dec-22.
23. Dr. Harihara Santosh Dadi, Programming, Data Structures And Algorithms Using Python, IITM, July-Dec-22.
24. Dr. G. Sateesh Kumar, IoT Based Smart Automation System MVGR College of Engineering (A), 22nd to 27th August, AICTE.

25. Dr. K.V.Lalithabhavani, Smart Healthcare Technologies: Opportunities and Challenges, MNIT Jaipur, 25th July to 05 th August 2022, Electronics & ICT Academies.
26. Dr. K.V.Lalithabhavani, Embedded system design with ARM IIT Madras, July - September 2022, NPTEL-AICTE.
27. Sri. S.Uma maheswara rao, Recent Advances in Artificial Intelligence in Biomedical applications, NIT-Rourkela, 01-12-22 to 07-12-22.
28. Dr.M.Jaya Manmadha Rao, IOT Based Smart Automation System, MVGR College of Engineering Vizianagaram, 22/08/2022 TO 27-08-2022, AICTE.
29. Dr.M.V.H.B.Murty, IoT based Smart Automation System, MVGR College of Engineering(A), Vizianagaram 22nd to 27th August, 2022.

## **FDP organized by the faculty**

1. Dr. G. Yogeswararao, organised FDP "Advanced Technologies for Emerging Research in Mechanical Engineering", Annamacharya Institute of Technology and Sciences, 05.12.2022 to 09.12.2022.

## **Workshops attended by faculty**

1. Smt. Eppili Jaya attended a Workshop on "Designing and Modelling of IOT, AI & ML Systems" Organised by AICTE, ATAL Academy and ARM Education and STMicromicrocontrollers 1st to 5th August 2022.

## **Books Published:**

1. Dr.P. Sirish Kumar published a text book on "Micro processors & Systems"-29-July-2022, Shree Publishing House, 978-93-91117.

## **Patents Published:**

1. P.Kameswara Rao published a patent on "A System for Quality Monitoring and Management of Water in Stored Conditions Thereof" Application No.202241040827A, Publication Date : 22/07/2022, applied 18/07/2022.
2. D.V.L.N.Sastry, A System for Quality Monitoring and Management of Water in Stored Conditions Thereof, Application No.202241040827A, Publication Date:22/07/2022, " applied 18/07/2022.
3. Dr.P.Sirish Kumar, HIGH DENSITY SOLAR PANEL WITH SUN POSITION TRACKING AUTO CLEANING SYSTEM, Application No. 202241042031A, dated. 22-07-2022.
4. Smt. Eppili Jaya, "A Tower Arrangement for Mobile Communication with Integrated Power Generation and Multifarious Frequency Transmission System" Application No.202241046362A, Publication Date :26/08/2022.



## Student Achievements:

S. NO	NAME OF ACTIVITY	STUDENT NAME & REGISTRATION NUMBER	CLASS	NAME OF EVENT & VENUE	DATE	AWARDS
1	Model Presentation	A Sowjanya 20A51A04I0	3 <sup>rd</sup> ECE	National Level SRGEC Ideathon 2022	15-Oct-22	Secured 1st prize
2	Model Presentation	V Jhansi 20A51A04I7	3 <sup>rd</sup> ECE	National Level SRGEC Ideathon 2022	15-Oct-22	Secured 1st prize
3	Introduction to IOT	G udaykrishna 20A51A0418	3 <sup>rd</sup> ECE	nptel	July -oct 2022	Course completion
4	Introduction to IOT	B sangeetha 20A51A0408	3 <sup>rd</sup> ECE	nptel	July -oct 2022	Course completion
5	Embedded system design with arm	Ch bhavanisankar	3 <sup>rd</sup> ECE	nptel	july-sept 2022	Course completion
6	Introduction to IOT	V Sneha 20A51A0459	3 <sup>rd</sup> ECE	nptel	july-oct 2023	Course completion
7	Introduction to IOT	K jabili 20A51A0426	3 <sup>rd</sup> ECE	nptel	july-oct 2023	Course completion
8	Introduction to IOT	A Vani 20A51A0403	3 <sup>rd</sup> ECE	nptel	july-oct 2023	Course completion
9	Introduction to IOT	Bjyotshna	3 <sup>rd</sup> ECE	nptel	july-oct 2023	Course completion
10	Introduction to IOT	P manasa 20A51A0444	3 <sup>rd</sup> ECE	nptel	july-oct 2023	Course completion

**Guest lecture on Microstrip Antennas on 19.9.2022 by Dr. G.Karunakar, GITAM University, Visakhapatnam**



**Guest lecture on VLSI Designing on 25.10.2022 by Dr. S.Sreedhar, Lendi College of Engineering, Vizianagaram.**



**Guest lecture on Textile Antennas on 24.11.2022 by Dr. M.Satyanarayana, Professor of ECE, MVGR, Vizianagaram.**



## **Editorial Board**

### **STAFF:**

P.Kameswara Rao

### **STUDENTS:**

Batchala Sruthi, IV- ECE-A

Kinjarapu Akhil, III-ECE-B

Chinthu Sai Santhoshi, II-ECE-C



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