Sri Sai Ram Engineering College Department of Electronics and Instrumentation Engineering

| Name: Dr.K. ANBUMANI | |
|---|--|
| Designation: | Associate Professor |
| Qualification: | M.E., Ph.D. |
| Area of Specialization: | Process Control and Instrumentation |
| Experience: | Teaching: 18.6 yrs. |
| | Industry/Polytechnic: NA |
| Date of Joining the Institution | 10.06.2010 |
| Number of Workshops/ Seminars/ FDP Attended: | Seminar: 16 Workshop: 10 FDP: 26 Training: 05 Online Courses: 22 |
| Publication: | National Journal: 01 International Journal: 04 National Conference: 04 |
| General | International Conference: 07 Life member of Instrument Society of India (ISOI) Institution of Engineers India (IEI) Indian Society for Technical Education (ISTE) Institute of Electrical and Electronics Engineering (IEEE) |
| Research Guidance | Guided 18 UG projects till date. |
| Staff Achievement | Have won cash awards for producing 100% results more than 12 times. |

Experience:

| S. No | Name of the Institution | Designation | Department | Period of Experience |
|----------|---|------------------------|--|-------------------------|
| 1 | Sri Sairam Engineering College, West Tambaram, Chennai. | Assistant Professor | Electronics and Instrumentatio n Engg. | (June 2010 - till date) |
| 2 | Valliammai Engineering College, Kattankolathur, Chennai. | Lecturer | Electronics and Instrumentation Engg. | (June '06 - June'10) |
| 3. | PMR Institute of Technology, Chennai. | Lecturer | Electronics and Instrumentation Engg. | (June'05 - May'06) |

Seminar / Webinar Attended:

Attended webinar on "In space Propulsion A Journey with ISRO" organized by high energy materials society of India, SHAR, Chennai Chapter on 28th November 2020.

Attended the webinar on "Deep Learning for Modelling and Control for Bioprocess" organized by Easwari Engineering College 22nd June 2020.

Participated in the webinar on "Applications on Automation in process Industries" organized by St. Joseph's College of Engineering on 17th June 2020.

Participated in the webinar on "R&D Proposal writing for Faculties" organized by Srisairam Engineering College on 12th June 2020.

Participated in the webinar on "The Risk of Artificial Intelligence: A Security Perspective" organized by St. Joseph's Institute of technology on 12th June 2020.

Attended the webinar on "Internet of Things" organized by Velalar College of Engineering and Technology, Erode on 12th June 2020.

Participated in the webinar on "Role of IoT in Smart City Development" organized by Kumaraguru College of Technology on 10th June 2020.

Participated in the webinar "Smart Factory Automation with Digital Twin and Live Demonstration on Skillon365" conducted by MTAB Technology Centre Private Ltd. on 10th June 2020.

Participated in the webinar on Machine Learning and Deep Learning for Engineering Applications using MATLAB on 29.05.2020 organized by Karunya Institute of technology and sciences.

Participated in the IIC online session "Innovation, IPR, Entrepreneurship among HEIs" from 28th April 2020 to 22nd May 2020.

Participated in the webinar on Data Pipelines organized by St.Peter's Institute of Higher Education and Research on 15th May 2020.

Attended webinar on "First Leadership Talk" organized by MHRD Innovation cell, on 2nd May 2020.

Participated in the seminar on Leveraging Automation to enhance productivity, Quality and work place safety on 24th January 2014 conducted at Hotel fortune select alms, Thoraipakkam, Chennai.

Participated in the one-day seminar on "safety Integrity A life cycle Approach" organized by ISA South India Section, Chennai at IC&SR Auditorium, IIT Madras on 27th November 2010.

Participated in the VJ Mantra 2009.an annual technical paper contest for students and research scholars.

Attended Lecture on 'Relevance of instrumentation and Automation in today's world' organized by ISA South indie section, Chennai at Anna University, Alumini club on 10th January, 2008.

Workshops Attended:

Attended Three days workshop on "Industrial Automation (PLC Programming) organized and conducted by Microwin Automation, Trichy from 19th June 2020 to 20th June 2020.

Attended two days workshop on Advancement in MEMS and its Research Aspects from 19th September 2019 to 20th September 2019 organized by SRM Institute of Science and Technology.

Attended Three days Workshop titled "process automation using MATLAB", from 23rd July 2018 to 25th July 2018.

Attended Two days Workshop on "PIC Microcontroller based Embedded System Design", organized by Sri Sairam Engineering College, Chennai February 2012.

Attended Two-day Workshop on "Modern PID Controllers and their Capabilities", organize by ISA South India Section, Chennai December 2011.

Attended Two days Workshop on "Industrial Automation", organized by Sri Sairam Engineering College, Chennai on September 2011.

Attended Two days Workshop on "Smart MEMS and Sensor Systems", organized by St. Peter's Engineering College, Chennai on December 2010.

Attended one day Workshop on "Instrumentation system design and Embedded Technology", organized by Valliammai Engineering College, Chennai on August 2008.

Attended one day Workshop on "Industrial Automation", organized by Valliammai Engineering College, Chennai on August 2007.

Attended one day Workshop on "PLC, PAC and Drives", organized by Valliammai Engineering College, Chennai on March 2007.

FDPs/SDPs Attended:

Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "Artificial Intelligence" from 2020-11-23 to 2020-11-27 at Central Institute of Technology.

Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "Robotics" from 2020-11-2 to 2020-11-6at MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABAD, PRAYAGRAJ.

Participated in faculty development program on "Recent Trends on Green Energy" organized by GMR Institute of Technology from 12th October to 16th October 2020.

Attended short term training program on "Supervised and Unsupervised machine Learning using Google Cloud" conducted by RMK college of Engineering and technology from 12.10.2020 to 17.10.2020.

Participated in the International Faculty Development Program on "International Automation Using PLC /SCADA with IoT" organized by the School of Electrical Engineering, at VIT (Chennai) from 21.09.2020 to 25.09.2020.

Attended Three days faculty development programme on "Get Ready for AI with MATLAB and SIMULINK" organized by Dept. of ECE Srisairam Engineering College from 18.06.2020 to 20.06.2020.

Participated five days faculty development programme on "Integration of Renewable energy systems Research Tools Industrial Perspective organized by Lakireddy Balireddy college of Engineering from 18.05.2020 to 22.05.2020.

Attended five days faculty development programme on "next Generation Intelligence" organized by St.Peter's Institute of Higher Education and Research from 20.05.2020 to 25.05.2020.

Attended Five days faculty programme on Electron devices, Microprocessors and Image processing from 11.05.2020 to 15.05.2020 organized by SRM Valliammai engineering college.

Took part in the research oriented Faculty Development program on Applied Machine Learning conducted by Anna University on 9th March and 10th march 2020.

Participated in the Faculty Development programme on Artificial Intelligence from 5th December to 11th December 2019 organized by Sri Sairam Engineering College.

Completed Faculty development programme on patent drafting for beginners from July 2019 to August 2019.

Attended Faculty development programme on Process Modeling and Control from 11th June 2019 to 15 th June 2019 organized by Sri Sairam Engineering College.

Attended five days Faculty Development Program on "Entrepreneurship Career Development Program" from 08.04.2019 to 12.04.2019.

Attended faculty Development programme on Introduction to Research from August 2018 to September 2018.

Attended four-days Faculty Development Programme on "Basic Electrical, Electronics, Measurements and Instrumentation Engineering" on November 2017 organized by Rajalakshmi Institute of technology.

Attended seven days Faculty Development Programme on" Microcontroller based system Design" on June 2016 organized by SriSairam Institute of technology.

Attended eight-days Faculty Development Programme on "Advanced Control System" organized by SSN College of Engineering, Chennai on January 2016.

Attended Eight-day Faculty Development Programme on "Power Electronics" organized by Sri Sairam Engineering College, Chennai on June 2015.

Attended one day Faculty Enablement Programme on "A Step to outcome Based Accreditation" organized by Sri Sairam Institute of Technology, Chennai on April 2015.

Attended seven days Faculty Development Programme on "Control System Engineering" organized by Rrase college of Engineering, Chennai on December 2014.

Attended one day Faculty Development Programme on "Matlab Applications in Electrical Engineering" organized by Sri Sairam Engineering College, Chennai on March 2012.

Attended One day Faculty Development Programme on "Power Flow Solutions & Demo on CYME Power Engineering Software" Organized by Sri Sairam Engineering College, Chennai on January 2011.

Attended one day Faculty Development Programme on "Electro Magnetic Theory" organized by Dept. of EEE, Valliammai Engineering College on April 2008.

Attended one day Faculty Development Programme on "Advanced Process Control & VLSI Design" organized by Valliammai Engineering College on April 2008.

Attended Three days Quality Improvement Programme on "Instructional design and Delivery" organized by Valliammai Engineering College on December 2007.

Hands on Training:

Attended one day hands on Training on Deep Learning with MATLAB conducted by Coimbatore institute of Technology on 26.05.2020.

Attended Five days Training Program on "DCS and Field Instruments" organized by Sri Sairam Engineering College, Chennai on January 2013.

Attended Three-day Hands on Training on "PLC Programming and SCADA Application", organized by Sri Sairam Engineering College, Chennai on September 2012.

Had Undergone Five Day Train the trainer program on NI LABVIEW organized at Department f ICE, Faculty of E&T, SRM University, and Chennai on November 2009.

Has Undergone a Five-day full-time course of advanced training in "TMC on Embedded Controllers and its Applications" at Advanced Training Institute, Government of India, Ministry of Lab our and Employment, Chennai. On January 2005.

Online Courses:

Successfully completed certificate course on step into Robotic Process Automation on 1st June 2020. Successfully completed certificate course on Game Development using PyGame 2nd June 2020. Successfully completed certificate course on Quantum Mechanics on 31.05.2020. Successfully completed certificate course on Introduction to solar cells on 26.05.2020. Successfully completed certificate course on spreadsheets for beginners using google sheets on 29.05.2020. Successfully completed certificate course on Intelligent Machining 26.05.2020. Successfully completed certificate course on Essential of Entrepreneurship on 20.05.2020. Successfully completed certificate course on natural Gas on 18.05.2020.

Successfully completed certificate course on Electric Power system on 17.05.2020.

Successfully completed certificate course on Introduction to Artificial intelligence on 15.04.2020.

Successfully completed certificate course on Healthy practices on 13.05.2020.

Successfully completed certificate course on AI for Everyone on 12.05.2020.

Successfully completed certificate course on material science 08.05.2020.

Completed the speaking effectively course from HARAPPA on 13.04.2020.

Successfully Completed Certificate Course on Python for Data Science April 2020.

Successfully completed and received a passing grade on Introduction to Data Science 31.03.2020.

Successfully completed and received a passing grade on Deep Learning with Tensor flow 01.04. 2020. Successfully Completed Certificate Course on Deep Learning, Hands on Artificial Neural Network on 12th Nov 2019.

Successfully Completed Certificate Course on Patent Drafting for Beginners Aug 2019.

Successfully completed certificate course on introduction to Research from August 2018 to September 2018.

Successfully completed certificate course on Analog Circuits from Feb 2018 to March 2018.

Guest Lecturer:

Delivered a lecture on "Electrical Circuits, Devices and Control Systems" 16th June 2023 held at SRM Valliammai Engineering College.

Delivered a lecture on "Electrical Machines and Industrial Automation" 6th December 2022 held at SRM Valliammai Engineering College.

Projects:

Guided project Titled "counterfeit currency detection technique using Image Processing, polarization principle and Holographic Techniques" funded by IEDC sri sairam engineering college during 2013-2014.

Guided project Titled "Analysis and classification of Milk Quality Using Electronic Sensory Organs" funded by IEDC sri sairam engineering college during 2018-2019.

Patents:

Published a paper under section 11A, "counterfeit currency detection technique using Image Processing, polarization principle and Holographic Techniques".

Published under section 11A "Smart Driver Guidance System for Indian Roads".

Published under section 11A "Automated Safety System for Driver and Pillion Rider in Two Wheeler".

Reviewers:

Acted as reviewer in various conferences notable conferences are AIIPCC2019, ICCCIS 2021.

| S.No. | Title of the paper | Journal Details | Publication details (Vol/Edition/Year and month) |
|-------|-----------------------------------|---------------------------------|--|
| 1 | Model order Reduction for a | Journal of Advanced Research | Vol 6, no. 17, pp. |
| | single input single output system | in Dynamical and Control | 126-131.May 2018. |
| | using optimization technique. | Systems | |
| 2 | Linear Quadratic Regulator for | International Journal of Recent | ISSN: 2277-3878, |
| | three Interacting Cylindrical | Technology and Engineering | Volume-8, Issue-1S4, |
| | Tank Control. | (IJRTE) | June 2019 |
| 3 | Three-Interacting Tank | Lecture Notes in Electrical | 978-981-15-2611-4; |
| | Controlled with Decentralized PI | Engineering, Springer. | March 2020, Vol.637. |
| | Controller Tuned Using Grey | | |
| | Wolf Optimization. | | |
| 4 | Optimal state feedback controller | Microprocessors and | Sep. 2020, Vol. |
| | for three tank cylindrical | Microsystems. | 79, 103269. |
| | interacting system using Grey | | |
| | Wolf Algorithm. | | |

Indexed Journal:

Indexed Conference:

| S.No. | Title of the paper | Journal Details | Publication details (Year & month) |
|-------|---|-----------------------------------|--|
| 1 | Counterfeit Currency Detection Technique Using Image Processing, Polarization Principle | Fifth International Conference on | Sep.2013 |

| 2 | and Holographic Technique. GWO Based tuning of PID controller for a Heat Exchanger Process. | IEEE Third International Conference on sensing, signal processing and security (ICSSS 17) held at St. Peter's | May 2017 |
|---|--|---|----------|
| | | College of Engineering and Technology, Chennai. | |

Journal:

| S.No. | Title of the paper | Journal Details | Publication details (Vol/Edition/Year and month) |
|-------|--|-----------------|--|
| 1. | Design of Fuzzy Level Control for Diesel Inter stage Drum using MATLAB | | Volume 119 No. 15 2018, 545-550, ISSN: 1314-3395 |

International Conference:

| S. No | Title of the paper | Conference Details | Month / Year of publication |
|-------|---|--|-----------------------------------|
| 1. | Design of Three Electrode Conductivity Sensor with Dual Temperature Compensation for Salinity Measurement. | International Conference on Electrical and Computer Science (ICEECS 2014) held at Chennai. | March 2014 |
| 2. | Design of Fuzzy Level Control for Diesel Inter stage Drum using MATLAB | Third International Conference on Innovative and Emerging Trends in Engineering and Technology (ICIETET'18) organized by Panimalar Institute of Technology, Chennai. | March 2018 |
| 3. | Design of FOPID Controller for a Dynamic System | International conference on Photonics and High-Speed Optical Networks (ICPHON18) Organized by the Department of ECE S.A. Engineering College, Chennai. | April 2018 |
| 4. | Analysis and Quality Detection of Milk | 7thInternationalConferenceonContemporaryEngineeringandTechnology | March2019 |

| 5. Advanced military spying and bomb disposal using MAV | Fifth International Conference on Green Technologies for Power Generation Communication and Instrumentation | April 2019 |
|---|---|------------|
| | Communication and monunciliation | |

National Conference:

| S. No | Title of the paper | Conference Details | Month / Year of publication |
|-------|--|--|-----------------------------------|
| 1 | Design of Sensor less Control System | National Conference on "Electronics, Control and Automation", NCECA 2009. | Sept. 2009 |
| 2 | Low Resolution Hall Effect Sensor | National Conference on "Emerging Technologies in Electrical Engineering", (NCEEE10) | April 2010 |
| 3 | Smart Sensors for Power Grid Assets | DRDO sponsored National Conference on "Control, Communication & System Engineering" held at Tamilnadu College of Engineering, Coimbatore. | Sept.201 3 |
| 4 | Modeling and simulation of Nonlinear Spherical Tank using Neural Network | National Conference (NCESVC'16) held at S. Veerasamy Chettiar College of Engineering and Technology, Puliyangudi. | March 2016 |