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EDUCATION

- ➢ Ph.D. (Biomedical Engineering) during 2013-23 in the Department of Biomedical Engineering, University College of Engineering (A), Osmania University.

- ➢ M.E. (Biomedical Electronics) during 2007-2009 in the Department of Biomedical Engineering, University College of Engineering (A), Osmania University.

- ➢ B. Tech. (Electrical and Electronics Engineering) during 2003-2007 in Jawaharlal Nehru Technological University, Hyderabad.

EXPERIENCE

- ➢ Presently working **as Assistant Professor (c), Department of BME, University College of Engineering, Osmania University** since August 2010.

- ➢ **Demonstrating skills in teaching the following subjects:**
  - ✓ Electronic Devices and Circuits
  - ✓ Electronic Circuits
  - ✓ Medical Image Processing
  - ✓ Transducer and Biosensors Engineering

- ➢ **Proven skills in managing following laboratories:**
  - ✓ Electronic Devices and Circuits Lab
  - ✓ Electronic Circuits Lab
  - ✓ Biomedical Signal Processing Lab
  - ✓ Embedded systems Lab
  - ✓ Transducer and Biosensors Lab

- ➢ **Proven skills in teaching other subjects:**

  - ✓ Biomedical Signal Processing
  - ✓ Diagnostic and Therapeutic Equipment
  - ✓ Medical Embedded Systems and RTOS
  - ✓ Advanced Biomedical Equipment
  - ✓ Biomedical Instrumentation
  - ✓ Medical Informatics

- ➢ Supervising Graduate (2 batches) and Post Graduate (3) students in their project.

- ➢ Till now supervised 14 batches of graduate level projects and 8 post graduate projects.

- ➢ Experience of facilitating/coaching students by using interactive discussions and "hands-on" approaches to help students learn and apply concepts in subjects.

- Instrumental as External Examiner to the Government Institute of Electronics (East Marredpally), Nizams Institute of Medical Sciences, Department of ECE, UCEOU and GRIET, Hyderabad.

- Successful in conducting TET examination in UCEOU as Chief Superintendent.

- Instrumental as Observer to various competitive examinations like TSLPBRT, TSPSC, CDAC.

- Extended services of Presiding Officer to the Election Commission of India.

- Editor of the Souvenir, International Conference on Emerging Trends in Engineering (ICETE 2019) held in University College of Engineering, Osmania University during 22nd -23rd March, 2019.

- Prepared Manuals for Medical Embedded Systems Laboratory, Electronic Devices and Circuits Laboratory and Electronic Circuits Laboratory.

MEMBERSHIPS

- Member (No. 94812764) of IEEE Hyderabad section.

- Member (No. 94812764) of IEEE Engineering in Medicine and Biology Society.

- Member (No. 94812764) of IEEE Signal Processing Society.

- Member (No. 94812764) of IEEE Young Professionals.

- Life Member (No: 176697) of International Association of Engineers (IAENG).

- Life Member (No: 1386) of Biomedical Engineering Society of India (BMESI).

TECHNICAL EXPOSURE

- Operating Systems : MS-DOS, Windows-XP, Windows 7.
- Packages : Mimics, MATLAB, Labview, PADS, MS Office.
- Language : C, Embedded C.
- Networks : Design and Implementation LAN.
- Medical Instruments : Electrocardiograph, Pysiopack, Analytical instruments.

ENGAGEMENTS

- Departmental Coordinator, RUSA, Biomedical Engineering, University College of Engineering, Osmania University.

- Departmental Coordinator, TEQIP-II & III, Biomedical Engineering, University College of Engineering, Osmania University.

- Faculty Advisor, IEEE EMBS student chapter, University College of Engineering, Hyderabad.

- Member, Committee for uploading data to NIRF and Committee to finalize M.E./M. Tech syllabi.

- Treasurer and Ex-General Secretary, Engineering College Teachers Association(C), UCE, OU.

- Member, Technical Program Committee, International Conference on Emerging Trends in Engineering (ICETE 2023) held in University College of Engineering, Osmania University during 28th -30th April, 2023.

- Member, Technical Program Committee, International Conference on Emerging Trends in Engineering (ICETE 2019) held in University College of Engineering, Osmania University during 22nd -23rd March, 2019.

- Member, Technical Program Committee, International Conference on Innovative Technologies in Engineering (ICITE 2018) held in University College of Engineering, Osmania University during 11th - 13th April, 2018.

ACHIEVEMENTS

- Team member in showcasing 4 innovative products in BioAsia 2017.
- Achieved 1625 all India rank in GATE in 2007.
- Published an International Conference paper in ME Course.
- Successfully organized Ganesh Navarathri in University Hostel in 2009.

INTERNATIONAL JOURNAL PUBLICATIONS

- Ram, A.V., **Kuchulakanti, H**., Raj, T.S. (2022). *Brain Tumor Detection and Classification Using Transfer Learning Technique*. In: Smys, S., Tavares, J.M.R.S., Balas, V.E. (eds) Computational Vision and Bio-Inspired Computing. Advances in Intelligent Systems and Computing, vol 1420. Springer, Singapore. https://doi.org/10.1007/978-981-16-9573-5_36

- Kairamkonda D.D., Bitla S., **Kuchulakanti H.** (2022) *A Review on Biomaterials Based Biosensors for Bilirubin Detection*. In: Bindhu V., R. S. Tavares J.M., Ţălu Ş. (eds) Proceedings of Fourth International Conference on Inventive Material Science Applications. Advances in Sustainability Science and Technology. Springer, Singapore. https://doi.org/10.1007/978-981-16-4321-7_3.

- Belly C., Bonula S.P., Kandukuri U.R., **Kuchulakanti H**. (2020) *A Review on Methods of Treatment for Diabetic Foot Ulcer*. In: Satapathy S.C., Raju K.S., Shyamala K., Krishna D.R., Favorskaya M.N. (eds) Advances in Decision Sciences, Image Processing, Security and Computer Vision. Learning and Analytics in Intelligent Systems, vol 3. Springer, Cham. https://doi.org/10.1007/978-3-030-24322-7_9.

- Chinthoju A., Chekka J.G., Nadigepu R., **Kuchulakanti H**. (2020) *IoT Aided Non-invasive NIR Blood Glucose Monitoring Device*. In: Satapathy S.C., Raju K.S.,

Shyamala K., Krishna D.R., Favorskaya M.N. (eds) Advances in Decision Sciences, Image Processing, Security and Computer Vision. Learning and Analytics in Intelligent Systems, vol 3. Springer, Cham. https://doi.org/10.1007/978-3-030-24322-7_11.

➤ **Kuchulakanti H**., Paidimarry C. (2020) Early Stage Squamous Cell Lung Cancer Detection. In: Satapathy S.C., Raju K.S., Shyamala K., Krishna D.R., Favorskaya M.N. (eds) Advances in Decision Sciences, Image Processing, Security and Computer Vision. Learning and Analytics in Intelligent Systems, vol 3. Springer, Cham. https://doi.org/10.1007/978-3-030-24322-7_15.

INTERNATIONAL CONFERENCE PUBLICATIONS

➤ D. Kairamkonda, S. Chandana Kodimela, and **H. Kuchulakanti**, "Blind Mate: A Friend to The Blind," *2019 IEEE 16th India Council International Conference (INDICON)*, 2019, pp. 1-4, doi: 10.1109/INDICON47234.2019.9028921.

➤ **Harish Kuchulakanti**, Chandrasekhar Paidimarry, *A Novel Approach for Lung segmentation and Lung nodule detection*, International Conference on Research Advancements in Applied Engineering Sciences, Computer and Communication Technologies (ICRAAESCCT–2018) held in B.V. Raju Institute of Technology and Institute For Engineering, during 12th-13th July 2018.

➤ **Harish Kuchulakanti,** Mohammad Ibrahim, Rayikanti Tejashwini, Bathula Thejaswi**, *"Quantification of RBCs and WBCs using Image Processing Techniques",* International Conference on Innovative Technologies in Engineering (ICITE 2018), held in Osmania University, Hyderabad during 11th - 13th April 2018.

➤ **Harish Kuchulakanti**, Chandrasekhar Paidimarry "*A Novel Approach for Lung segmentation and Lung nodule detection*", International Conference on Research Advancements in Applied Engineering Sciences, Computer and Communication Technologies (ICRAAESCCT – 2018) (Scopus indexed Journal publication) held in B.V. Raju Institute of Technology and Institute For Engineering during 12th-13th July 2018.

➤ **K. Harish**, M. V. Rao, R. Borgohain, A. Sairam and P. Abhilash, "Tremor quantification and its measurements on parkinsonian patients," *2009 International Conference on Biomedical and Pharmaceutical Engineering*, 2009, pp. 1-3, doi: 10.1109/ICBPE.2009.5384068.

NATIONAL PRESENTATION

➤ Mr. M. Venkateswara Rao, Dr. M. Sailaja, Mr. K. Harish, Mr. B. Harinatha Reddy, "*Non-Invasive Beat-to-Beat BP Measurement*", National Conference on Biotechnology, Bioinformatics and Bioengineering [BBB], Tamil Nadu, Dec 17-18, 2010.

WORKSHOPS ORGANIZED

➢ Conducted a Student Training program on **Artificial Intelligence and Machine Learning** in Future Skill technologies through online mode during 5th August-4th September 2021.

➢ Programme Coordinator to conduct a "**Two day In-House training on Python programming**" in association with Engineering Staff College of India from 21st September to 22nd September 2019 in University College of Engineering, OU.

➢ Organized Five day Hands-on training workshop on "**3D modeling and Image processing**" during 23rd – 27th July 2018 in the Department of Biomedical Engineering, Osmania University sponsored under TEQIP -III.

➢ Organized a National level Five day workshop on "**Electronic Product Design**" during 02nd – 06th January 2017 in the Department of Biomedical Engineering, Osmania University sponsored under TEQIP -II.

WORKSHOPS ATTENDED

➢ Participated One Week Faculty Development Programme on "**AI for Multimedia Processing and Security**" during 18th -22nd February 2023, organized by Department of Computer Science and Engineering, National Institute of Technology Patna Sponsored by ISEA project, Phase-II, MeitY, Government of India.

➢ Participated in a 40 hours online Program on **Medical Image Processing** jointly organized by the Electronics and ICT Academies at IIT Roorkee, MNIT Jaipur, NIT Patna, PDPM IIITDM Jabalpur and NIT Warangal during August 22 – September 2, 2022 under the "Scheme of financial assistance for setting up of Electronics and ICT Academies" of the Ministry of Electronics and Information Technology (MeitY), Government of India.

➢ Participated in a 2-day workshop on **Solid works on Biomedical applications** from 18th-19th February 2022 in the Department of BME, UCEOU.

➢ Participated and successfully completed AICTE Training And Learning (ATAL) Academy online FDP on "**3D Printing and Design**" from 08th November 2021 to 12th November 2021 at the Department of Biomedical Engineering, University College of Engineering, OU.

➢ Participated and successfully attended "Online Faculty Training on **Artificial Intelligence and Machine Learning**" organized by Knowledge incubation for TEQIP, IIT Kanpur during 14th – 24th June 2021.

- Participated and successfully completed AICTE Training And Learning (ATAL) Academy online FDP on "**Machine Learning**" from 07th December 2020 to 11th December 2020 at R.M.K College of Engineering and Technology.

- Attended Three Day National Workshop (online) on "**Outcome Based Education (OBE) and NBA Accreditation**" (SAR Preparation and Assessment) during 12-14, August 2020 Organized by University College of Engineering (A) Osmania University.

- Successfully completed 2 weeks (online) course on "**Digital Transformation in Teaching-Learning Process**" offered by IIT Bombay and powered by Swayam, TEQIP III from 6th April 2020 to 22nd April 2020.

- Attended **Hands-on training on Medical Equipment (Module I)** from1st - 2nd February 2019 in the Department of BME, UCEOU Sponsored by TEQIP-III.

- Attended the **Section Student Congress'19** of IEEE Hyderabad section held on 10th August 2019 at JNTU Hyderabad.

- Participated in one day **Induction Program** at University College of Engineering (A), Osmania University Sponsored by TEQIP III on 20th January 2018.

- Attended a Quality Improvement program on "MedImg: Workshop on **Medical Imaging Techniques, Post Processing and Clinical Applications (QIP Sponsored) - MedImg 2017**" organized by the Centre for Biomedical Engineering, Indian Institute of Technology Delhi (IITD) during 14th - 16th April 2017.

- Participated in a Two-day workshop on **"Teaching, Learning and Assessment Methodologies"** organized by University College of Engineering (A), Osmania University on 13th & 14th December 2016 under TEQIP-II.

- Attended a workshop on **"Machine Learning for Medical Image Analysis (WMLMIA 2016)"** organized by the Multimedia Analytics and Systems group and School of Computing and Electrical Engineering, IIT Mandi from 18th -22nd June 2016.

- Attended one day workshop on **"How to write Research Proposal"** organized by University College of Engineering (A), Osmania University on 18th September 2015 under TEQIP-II.

- Attended AICTE sponsored Two-week winter school on "**Soft computing approaches in Pattern Recognition, Image Processing and MATLAB**" at Kalyani University, Kolkata from 8th - 20th January 2015.

- Participated in National Workshop on "**Convergence of Nano Bio Info Cogno**" held at Department of BME, UCEOU on 1st August 2014. The Chief Guest of the workshop was His Excellency Honourable Dr. APJ Abdul Kalaam, Ex-President of India.

- Participated in Faculty Development Program on "**Microcontrollers and their Applications**" held at Department of BME, UCEOU during 30th Jun-5th July 2014.

- Participated in National Workshop on **"Cognitive Sciences and Neuro Signal Processing"** held at Department of BME, UCEOU on 24th December 2013.

- Participated in National workshop on **"Virtual Instrumentation"** held at Department of BME, UCEOU during 9th – 11th October 2013.

- Participated in Three days Workshop on "**Engineering Research Methodology**" held at the Department of Civil Engineering, UCEOU during 26th - 28th August 2013.

- Participated in a Hands-on training program on **"MATLAB for Engineers"** held at Department of BME, UCEOU during 23rd -24th August 2013.

- Participated in a Two-day workshop on "**Procurement Guidelines & PMSS Software Training**" under TEQIP II, being conducted by NPIU-New Delhi and SPFU-AP at UCEOU on 16th - 17th May 2013.

- Successfully completed the course **"Communication Skills and Personality Development"** organized by the Centre for English Language Training (CELT), Osmania University from 7th September to 12th November 2009.

- Participated in the workshop on **"Biomedical Signal Processing"** jointly organized by the Department of Biomedical Engineering, Osmania University, and Government Institute of Electronics from 30th to 31st March 2009 under TEQIP.

- Undergone Placement Training Program - **"Samanvaya-2008"** organized by Placement and Training office, University College of Engineering (A), Osmania University during 8th & 9th March 2008 under TEQIP.

PRODUCT EXHIBITION

- ✓ Showcased four innovative Products and ideas in **BIO ASIA 2017** with a team of Mr. M.Venkateswara Rao, B. Sailalitha and K. Akitha during 06th - 08th February 2017 at Hitex, Hyderabad. Huge response was received from the visitors.

GUEST LECTURES

- ✓ Delivered and demonstrated an expert talk on "**3D Design and 3D printer"** on 12th November 2021 in the ATAL FDP on 3D printing and Design organized by the Department of Biomedical Engineering, University College of Engineering, Osmania University from 8th November 2021 - 12th November 2021.

- ✓ Delivered a guest lecture on "**Maintenance of Ventilators**" in the Short Term Training Program held at National Skill Training Institute (Formerly ATI-EPI), Hyderabad on 06-09-2018.

- ✓ Delivered a guest lecture on "**Maintenance of Ventilators**" in the Short Term Training Program held at National Skill Training Institute (Formerly ATI-EPI), Hyderabad on 05-09-2018.

- ✓ Delivered a guest lecture on "**Isolation Amplifiers**" in the National level Five-day workshop on "Electronic Product Design" held at the department of BME, UCEOU during 02nd – 06th January 2017.

Ph.D. RESEARCH

- ➤ **Broad Area:** Medical Image Processing.
- ➤ **Project Title:** "A Novel Pulmonary Nodule Detection and Classification Framework using Statistical and Machine Learning Methods".
- ➤ **Supervisor:** Prof. P. Chandra Sekhar, Professor, Department of ECE, UCE, OU.
- ➤ **Year of Award:** February 2023.