

# (Dr. Mohd. Suhaib Kidwai) Associate Professor, Department of Electronics and Communication, Faculty of Engineering, Integral University, Lucknow (+91-9453131419, mskidwai@iul.ac.in)

(Google Scholar Citation: Mohd Suhaib Kidwai - Google Scholar, |Orcid Id: https://orcid.org/0000-0002-4340-8140, |Research gate: Mohd KIDWAI | Integral University, Lucknow | electronics and communication | Research profile (researchgate.net), |linked In: www.linkedin.com/in/dr-mohd-suhaib-kidwai-a0102397)

#### **PROFILE**

- An accomplished academician with 14 years of experience in academia.
- A researcher specializing in bio-signal applications, particularly in the realm of neurological disorder detection using EEG signals.

## **RESEARCH INTEREST:**

 Developing algorithms that leverage EEG bio-signals to identify neurological conditions, employing advanced machine learning techniques alongside MATLAB and Python for simulation and analysis.

### SUMMARY OF RESEARCH ACCOMPLISHMENT:

- Completed Ph.D. in 2020 and developed an innovative algorithm for identifying neurological
  conditions through the analysis of EEG signals based on recurrence concepts. This research
  integrates advanced machine learning models and programming languages such as MATLAB
  and Python for effective simulation and analysis.
- Authored multiple publications, including papers in SCOPUS-indexed journals and IEEE conferences, covering topics like EEG signal processing, the impact of anesthesia on respiratory signals, and statistical methods for neurological disorder detection.
- Published an Indian patent for a machine learning-based approach for detecting neurological disorders and
- Published a book on algorithm-based detection methods in neurology.

### PROFESSIONAL MEMBERSHIP:

- Solar Energy Society of India (SESI)
- IEEE

#### **COURSE TAUGHT:**

- Digital Electronics
- Computer Organization and Architecture
- Fundamentals of Electronics Engineering
- Data Communication Networks

• Biomedical Engineering and Applications

# ADMINISTRATIVE/DEPARTMENTAL RESPONSIBILTY

- Presently working as Departmental Ph.D. coordinator since 2021.
- Presently working as Departmental criteria incharge for NAAC criteria VII in Computer Application Department.
- Involved in recording video lectures for the students enrolled in distance courses of Integral University
- Actively involved in organizing various conferences, seminars and symposium of national and international level.
- Actively involved in developing and modification of syllabus of engineering undergraduate and postgraduate courses as per the changing industry trends.
- Member of Departmental M.Tech Dissertation Committee.
- Actively involved in paper setting and evaluation of exam copies of engineering and diploma courses
- Actively involved in various student development program and placement drives.
- Co-ordinated with CCG&D cell as a placement coordinator of ECE department of Integral University.
- Also worked as a faculty sports coordinator for electronics department during annual sports meet at Integral University, Lucknow.

# STUDENTS SUPERVISION

Supervising three PhD. scholars enrolled in the Department of Electronics and Communication Engineering.

# **PUBLISHED PATENTS (1)**

A machine learning based approach for the detection of neurological disorders.

#### PUBLISHED/ACCEPTED SCI/SCOPUS RESEARCH PAPERS

- A paper entitled "Recording of EEG Signals and Role in Diagnosis of Sleep Disorder," has been published in a SCOPUS indexed journal Biomedical and Pharmocology Journal, Vol. 15 Issue 3 in 19 September, 2022.
- A paper entitled "Using Filter Technique Remove Noise from Random Signal," has been published in a peer reviewed International Journal of Science and Research (IJSR)Vol. 11, Issue 3 March, 2022.
- A paper entitled "A Novel Approach for Detection of Neurological Disorders through Electrical Potential Developed in Brain," has been published in SCOPUS indexed journal International Journal of Electrical and Computer Engineering (IJECE) Vol. 9 Issue 4.
- A paper entitled "Recurrence based method to determine the neurological disorders through electrical signals of brain," has been published in SCOPUS indexed journal International Journal of Innovative Technology and Exploring Engineering (TM)," Vol. 8 Issue 5. March, 2019.
- A paper entitled "A Novel Approach to study the effects of anesthesia on respiratory signals by using the EEG signals" has been published in SCOPUS indexed journal International Journal of Electrical and Computer Engineering (IJECE) Vol. 7 Issue 6.

### • PAPER PUBLISHED IN INTERNATIONAL CONFERENCES

- A paper titled, "Impact of Big Data Analytics in Healthcare" has been presented and published at Global Multitrack Conference (STAR-2023). The conference was jointly organized by Unifacvest University, South America and Integral University, India.
- A paper titled, "Performance Analysis of Low Pass FIR Filter Design using Dynamic and Adjustable Particle Swarm Optimization Techniques" has been presented and published in the Proceedings of the 2021 10th International Conference on System Modeling and Advancement in Research Trends, SMART 2021 pp. 576-580. The paper is SCOPUS indexed.
- A paper titled, "Hadoop based EMH framework: A Big Data approach" has been presented at published at 2021 International Conference on Advance Computing and Innovative Technologies in Engineering, ICACITE 2021 9404710, pp. 1068-1070. The paper is SCOPUS indexed.
- A paper titled, "A new perspective of detecting and classifying neurological disorders through recurrence and machine learning classifiers" has been presented at published at 2021 International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE)March 2021, DOI:10.1109/ICACITE51222.2021.9404645
- Participated in International Symposium on "Computational and Characterization Techniques in Engineering and Sciences" held on March 20,2017, at Integral University.
- Organized and delivered a lecture as an Invited Speaker, in International Seminar on Modern Trends in Engineering and Sciences (MTES-2017).
- Attended and organized international seminar on, "Present Scenario & future prospects of research in engineering and sciences (ISPSFPRES-17), held in Jan, 2017.

- Participated in International Symposium on "Computational and characterization techniques in engineering and sciences," in March-17, at Integral University, Lucknow.
- Attended and organized ETNCER-16, held at Integral University in 2016.
- Attended national seminar on, "Wireless sensor networks," in July,2016.
- Attended a seminar on MATLAB organized by CETPA Infotech Pvt. LTD on 1 April, 2014.
- Attended a seminar on "Arm RISC Machine" conducted by Tech formers Technologies Pvt. Ltd. On 12 March, 2015.
- Attended a seminar on the topic "New Paradigms in Indian Banking" organized by Amity University, Lucknow Campus on February 20, 2015.
- A paper titled, "Electrical current work as a medicine in the medical field" has been presented at International Conference on Computing and Communication Engineering. ICCCE-2013, Chandigarh, organized by Inter-science Research Network, Bhubaneshwar, ISBN No:978-93-82208-76-1.
- Presented the paper on the topic, "LIFI, the latest technology in wireless" at an international conference" ICCE-2012" in K.I.E.T, Ghaziabad,
- Presented a paper titled" An Overview of Artificial heart" at a National Conference held at Dev Bhoomi Institute Of Technology, Dehradun, India.
- Presented a paper titled "A salt and paper battery" a national conference held at SETI, Panhala in 2012.

# PUBLISHED NON-SCI-SCOPUS BUT PEER REVIEWED RESEARCH PAPERS

- A paper entitled "Statistical analysis of the method to determine the neurological disorders through electrical signals of brain," has been published in UGC indexed Journal of Emerging Technologies and Innovative Research 6 (2), 358-361.
- A paper entitled" A Review of the Recurrence Based Techniques for Detection of Various Neurological Disorders," has been published in International Journal of Advanced Research in Computer and Communication Engineering ISO 3297:2007 Certified Vol. 5, Issue 9, September 2016.
- A paper entitled "A Review of Total Harmonic Distortion in an oscillator and Modulating waveforms from digitally controlled CCCII+ Oscillator", has been published in IJSART, Vol 1 Issue 9 Sept-2015.
- A paper entitled "Use of Mathematical Concept of Recurrence in Detecting Epilepsy", has been published in IJSART Volume 2 Issue 3 –MARCH 2016, ISSN [ONLINE]: 2395-1052.
- A paper entitled, "The Study of Radiation Effects on Electronics in Space Environments", has been published in International Journal for Science and Advance Research In Technology", Volume 1 Issue 8 –AUGUST 2015, ISSN [ONLINE]: 2395-1052.

- A paper entitled "Enhancement in oscillating frequency from FSK signal using CCCII+ oscillator", has been published in International Journal of Emerging Trends And Technology in Computer Sciences (IJETTCS) Volume 3, Issue 3, july-2014, ISSN-2278-6856
- A paper entitled "An efficient algorithm for diagnosis of Alzheimer disease by using MATLAB" has been published in International Journal Of Emerging Trends And Technology in Computer Sciences (IJETTCS) Volume 3, Issue 2, March April 2014, ISSN-2278-6856.
- Published a paper in International Journal of Advanced Innovation in engineering and management, entitled "Use of Recurrence for the Detection of Epilepsy" Vol. 2 Issue 5, ISSN 2319 4847.
- Published a paper titled, "An Overview of stimulators" has been published in International Journal Of Engineering Sciences And Technology (IJEST) Vol. 4 Issue 10, ISSN: 0975-5462.

## **BOOK EDITED/ AUTHORED**

• A book titled, "Neurological Disorders: An Algorithm based detection" has been published in 2022 by Aargon Press, New Delhi ISBN No: 978-93-94070-87-5.

### **BOOK CHAPTERS**

Authored a chapter in the book chapter titled "Computer based techniques for detecting the neurological disorders" in the book titled "Pervasive Healthcare: A Compendium of Critical Factors for success" published by Springer (an international publisher of progressive academic research) as part of "EAI/Springer Innovations in Communication and Computing - EAISICC" in 2021. This chapter is indexed in SCOPUS.