

## FACULTY PROFILE



**Name:** Dr. Aarti Sharma

**Designation:** Assistant Professor

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### **Professional Qualification:**

- **Ph.D (Identification and Analysis of Brain Signals for Biomedical Applications), AMITY UNIVERSITY, Noida**
- **M.Tech.(Electronics), SLIET, Longowal with Distinction**
- **B.Tech. (Electronics) Punjab Technical University, Jalandhar**

### **Publications (Journals & Conferences):**

[1].Aarti Sharma, J. K. Rai and R. P. Tewari, "Prior forecasting of epileptic seizure and localization of epileptogenic region" **Journal of Biomedical Engineering: Application Basis and Communication**, vol. 29, No. 2, pp. 1-16 [SCOPUS].

[2]. Aarti Sharma, J. K. Rai and R. P. Tewari, "Epileptic seizure anticipation and localisation of epileptogenic region using EEG signals ", **Journal of Medical Engineering and Technology**, vol. 42, No. 3, pp. 203-216, 2018.

[3]. Aarti Sharma, J. K. Rai and R. P. Tewari, "Scalp electroencephalography (sEEG) based advanced prediction of epileptic seizure time", **Biomedizinische Technik/Biomedical Engineering** , Ahead of Print, July 2020.

[4]. Aarti Sharma, J. K. Rai and R. P. Tewari, " Schizophrenia Detection Using Biomarkers from Electroencephalogram Signals", **IETE Journal of Research**, pp. 1-10, July 2020.

[5] Aarti Sharma, J. K. Rai and R. P. Tewari, "**Epileptic Seizure Prediction and Identification of Epileptogenic Region using EEG Signal**," Proceeding of IEEE International Conference on Green Computing and Internet of Things (ICGCIOT) 2015, pp. 1188-1192, Galgotia College, Greater Noida. DOI: [10.1109/ICGCIOT.2015.7380644](https://doi.org/10.1109/ICGCIOT.2015.7380644) (Scopus)

[6]. Aarti Sharma, J. K. Rai and R. P. Tewari, "**Multivariate EEG Signal Analysis for Early Prediction of Epileptic Seizure**," Proceeding of IEEE Conference on Recent Advances in Engineering and Computational Sciences (RACES-2015), pp. 1-5, UIET, Panjab University, Chandigarh, DOI: [10.1109/RAECS.2015.7453318](https://doi.org/10.1109/RAECS.2015.7453318) (Scopus).

[7]. Aarti Sharma, "**Epileptic Seizure Prediction Using Power Analysis in Beta Band of EEG signals**," Proceedings of IEEE Conference on Soft Computing Techniques and Implementations (ICSCTI -2015), pp. 117-121, MRIU, Faridabad. DOI: [10.1109/ICSCTI.2015.7489552](https://doi.org/10.1109/ICSCTI.2015.7489552) (Scopus).

[8]. Aarti Sharma, J. K. Rai and R. P. Tewari, "**Anticipation of Epileptic Seizure in Advance and Localization of Seizure Onset Zone using Power Spectral Density**", Proceedings of IEEE conference on Innovative applications of Computational Intelligence on Power, Energy and Control and their impact on Humanity (CIPECH-2016), KIET Ghaziabad.

[9]. Aarti Sharma, J. K. Rai and R. P. Tewari, "**Detection of Alzheimer's Disease at Mild Cognitive Impairment Stage using EEG Signals**", Proceedings - 2019 International Conference on Electrical, Electronics and Computer Engineering, UPCON 2019, AMU, Aligarh.

DOI: [10.1109/UPCON47278.2019.8980110](https://doi.org/10.1109/UPCON47278.2019.8980110)

[10.] Aarti Sharma, J. K. Rai and R. P. Tewari, "**Identification of various neurological disorders using EEG signals**", Communication in Computer and Information Science, CICS-2019, IPEC, Ghaziabad. DOI: [10.1007/978-981-13-9939-8\\_9](https://doi.org/10.1007/978-981-13-9939-8_9).

[11]. Aarti Sharma, J. K. Rai and R. P. Tewari, "**Relative Measures to Characterize EEG Signals for Early Detection of Alzheimer**", 5th International Conference on Signal Processing and Integrated Networks, SPIN 2018, Amity University, Noida, DOI: [10.1109/SPIN.2018.8474288](https://doi.org/10.1109/SPIN.2018.8474288).

[12]. Aarti Sharma "**Frequency band separation of EEG signal**", in international conference, VCAN'2015 at IET Alwar, pp. 34-38.

### **Workshops/Seminars/FDPs**

1. Faculty Development Programme on "Sharpen your Edge" conducted at Inderprastha Engg. College .
2. Faculty Development Programme, on "wavelets and image processing" , conducted at Jaypee University.
3. Faculty Development Programme on "Advanced Matlab Programming and simulink " conducted at Inderprastha Engg. College .

4. Faculty Development Programme on “Matlab and its application in Signal Processing and Electric Drives” at Inderprastha Engg. College.
5. Faculty Development Programme on “ Evolutionary Computing”, conducted at Jaypee University, Noida.
6. 5 days QIP and workshop on “Brain Science and Technology”, conducted at IIT Delhi.
7. 5 days GIAN course on “ Advances in Neurotechnologies for Building Brain Machine Interface”, conducted at JMI New Delhi from Feb 25<sup>th</sup> 2017- March 1<sup>st</sup> 2017 .
8. 6 weeks SFRF – 2017 at IIT Delhi from 15<sup>th</sup> May 2017- 23<sup>rd</sup> June 2017.
9. 5 days QIP and workshop on “Brain Science and Technology”, conducted at IIT Delhi in March 2020.

**Work Experience:**

1. Presently working as Assistant Professor in ECE department at SRM University, Modinagar from 1<sup>st</sup> August 2022.
2. Twelve years of teaching experience as Assistant professor in Inderprastha Engg. College, Ghaziabad from July 2010 to July 2022.
3. One year of teaching experience in Galgotia College of engineering, Greater Noida from July 2009 to July 2010.
4. Two years of teaching experience in Amity University, Noida from May 2007 to July 2009.
5. Two years of teaching experience in Institute of Engineering & Technology, Bhabha from 1<sup>st</sup> August 2005 to May 2007.
6. One year of teaching Experience as a in GGSCMT, Kharar from July 2004 to 30<sup>th</sup> July 2005.

**Professional Memberships:**

- IETE Member