Dr. G. Suganya,

Assistant Professor,

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👤 Personal Information

Dr. G. Suganya Dept of EEE Joined in **May 18, 2023**	**Address for Communication** Department of Electrical & Electronics Engineering Kings College of Engineering Punalkulam, Pudukkottai, Tamil Nadu, India - 613 303

🎓 Qualification

- ✓ B. E (EEE), P.R. Engineering College, Anna University, 2009
- ✓ M. Tech (Power Systems), SASTRA University, 2011
- ✓ PhD (EEE), SASTRA University, 2020

📑 Research Interest

- ✓ Partial Discharge Analysis
- ✓ Development of Computational Intelligence Techniques for condition monitoring
- ✓ Ageing analysis of Transformer oils
- ✓ Modelling and simulation of Partial Discharge in Transformer Windings

💼 Experience

- ✓ Assistant Professor /EEE (May 2023-Present), Assistant Professor (Visiting) R&D (Aug 2022 – Apr 2023) - Department of EEE, Kings College of Engineering, Punalkulam, Pudukkottai.
- ✓ External Researcher (Aug 2022 – Apr 2023) - Universidad Técnica Federico Santa Maria, Santiago de Chile.
- ✓ Teaching Assistant (Aug 2014 – Mar 2020) - School of Electrical & Electronics Engineering, SASTRA Deemed to be University, Thanjavur.
- ✓ Assistant Professor (Jun 2012 – Nov 2013) - Department of EEE, P.R. College of Engineering & Technology, Thanjavur.

📄 Journal Publications (Impact Factor: 49.1)

- ✓ Jorge Alfredo Ardila-Rey, D. Figueroa, F. P. Torres, Suganya **Govindarajan**, B. A. De Castro and R. Schurch, "Bioinspired Ultra High Frequency Antenna for Partial Discharge Detection in High-Voltage Equipment," IEEE Transactions on Instrumentation and Measurement, 2024 doi: 10.1109/TIM.2024.3421437 **(SCI, IF: 5.6)**.

- ✓ Jorge Alfredo Ardila-Rey, Matias Cerda, Carlos Beltran, Bruno Albuquerque, **Suganya Govindarajan**, "A Novel E-Nose System for the Characterization of Dissolved Gases in Dielectric Oils", IEEE **Transactions on Instrumentation and Measurement,** vol.72, 6009316, 2023 *(SCI, IF: 5.6).*

- ✓ Harimurugan Devarajan, Suganya Govindarajan, Jorge Alfredo Ardila-Rey, Swaminathan Venkatraman, Narasimman Purushothaman "Study of PD Signatures in Transformer using Impulse Voltage by Holo Hilbert Spectral Analysis", **IEEE Transactions on Instrumentation and Measurement,** vol.72, 6008411, 2023 **(SCI, IF: 5.6).**

- ✓ Suganya Govindarajan, Adolfo Morales, Jorge Alfredo Ardila-Rey, Narasimman Purushothaman, "A Review on Partial Discharge Diagnosis in Cables: Theory, Techniques, and Trends", **Measurement,** vol.216, 112882, 2023 **(SCI, IF: 5.6).**

- ✓ Suganya Govindarajan, Muthukumar Natarajan, Jorge Alfredo Ardila-Rey, Swaminathan Venkatraman, "Partial Discharge Location Identification using Permutation Entropy based Instantaneous Energy Features", **IEEE Transactions on Instrumentation and Measurement**, vol. 70, pp. 1.-12, 2021. **(SCI, IF: 5.6)**

- ✓ Jorge Alfredo Ardila-Rey, Roger Schurch, Nicolas Medina, Suganya Govindarajan, Osvaldo Munoz, "Separation of Partial Discharges Sources and Noise Based on the Temporal and Spectral response of the Signals", **IEEE Transactions on Instrumentation and Measurement,** vol. 70, pp. 1.-13, 2021. **(SCI, IF: 5.6)**

- ✓ Suganya Govindarajan, Venkateshwar Ragavan, Ayman El-Hag, Jayalalitha Subbaiah and Kannan Krithivasan, "Development of Hankel Singular - Hypergraph Feature Extraction Technique for Acoustic Partial Discharge Pattern Classification", **Energies**, vol. 14, no. 6, pp. 1-15, 2021. **(SCI, IF: 3.2)**

- ✓ Suganya Govindarajan, Jorge Alfredo Ardila-Rey, Jayalalitha Subbaiah, Kannan Krithivasan, Nikhith Sannidhi and Balasubramanian M, "Development of Hypergraph Based Improved Random Forest Algorithm for Partial Discharge Pattern Classification", **IEEE Access**, vol. 9, pp. 96-109, 2021. **(SCI, IF: 3.9)**

- ✓ Suganya Govindarajan, Jayalalitha Subbaiah, Kannan Krithivasan, Andrea Cavallini and Jaikanth J, "Partial Discharge Random Noise removal using Hankel Matrix based Fast Singular Value Decomposition", **IEEE Transactions on Instrumentation and Measurement**, vol. 69, no. 7, pp. 4093-4102, 2020. **(SCI, IF: 5.6)**

- ✓ Suganya Govindarajan, Jayalalitha Subbaiah, Kannan Krithivasan, Andrea Cavallini and Jaikanth J, "Development of Hankel-SVD hybrid technique for multiple noise removal from PD signature", **IET Science, Measurement and Technology**, vol. 13, no. 8, pp. 1075-1084, 2019. **(SCI, IF: 1.4).**

- Suganya Govindarajan, Jayalalitha Subbaiah, Kannan Krithivasan and Muthukumar Natarajan, "HANKEL-EM-SVD: A Hybrid data dropout estimation technique for High Voltage Partial Discharge signals**", IET Science, Measurement and Technology**, vol. 13, no.6, pp. 824-835, 2019. **(SCI, IF: 1.4).**

🗒 National/ International Conference Publications

- Kishonica J.G., Gayathri A., Suganya Govindarajan and Kannan Krithivasan," "An Enhanced Hankel Matrix based Singular Value Decomposition Method for Removing Noise from Partial Discharge Signals," 11th International Conference on Advanced Computing (ICoAC), Chennai, India, 2019, pp.

🗒 Scopus Publications

- **Suganya Govindarajan**, Jayalalitha Subbaiah, Kannan Krithivasan and Venkatesh Srinivasan, "Survey of denoising techniques for partial discharge interferences", ARPN Journal of Engineering and Applied Sciences, vol. 12, no. 2, 2017.

- **Suganya Govindarajan**, Jayalalitha Subbaiah and Kannan Krithivasan, "A Combinatorial technique using wavelet and EMD for denoising partial discharge signature", ARPN Journal of Engineering and Applied Sciences, vol. 12, no. 7, 2017.