

Faculty Profile

Brief Profile



Dr. Parth Sarathi Panigrahy received the B.Tech degree in Electrical and Electronics Engineering from Biju Patnaik University of Technology, Odisha, India, in 2007. Dr. Panigrahy obtained his M.E. and PhD degrees in Electrical Engineering from the Indian Institute of Engineering Science and Technology, Shibpur, India, in 2013 and 2018, respectively. He has teaching experience of around 8 years (Post-PhD), started at Madanapalle Institute of Technology & Science, Andhra Pradesh as Senior Assistant Professor for 4 years and have been working as Assistant Professor at RVCE, since 2022. His research interest includes application of advanced signal processing techniques and applied soft computing technique in condition monitoring of electrical machines. He has published more than 16 research papers in various international journals and prestigious conferences. Recently, he is exploring application of AI innovations in the power and energy sector.

Personal Information

- **Name:** Dr. Parth Sarathi Panigrahy
- **Designation:** Assistant Professor
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- **Phone:** --

Google Scholar / ResearchGate / LinkedIn: <https://scholar.google.co.in/citations?user=PqYptDUAAAAJ&hl=en/>
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Domain of Expertise

Research Focus

- **Primary Area:** Condition Monitoring of Electrical Machines
- **Allied Areas:**
 - Signal Processing
 - Artificial Intelligence

Academic Qualifications

- **Ph.D.:** Electrical Engineering , Indian Institute of Engineering Science & Technology, Shibpur, 2018, Title: *Fault Diagnosis of Induction Motor Drives:A Journey Towards Feature Learning*
- **M.Tech:** Electrical Engineering , Indian Institute of Engineering Science & Technology, Shibpur, 2013
- **B.Tech:** Electrical & Electronics Engineering , Biju Patnaik University of Technology, Shibpur, 2007

Professional Experience

Experience			
S.No	Institute/College/Industry	Job Title	Duration (From- To)
1.	I.I.E.S.T., Shibpur	JRF, SRF	03/10/2013 to 31/07/2018
2.	Madanapalle Institute of Technology And Science, Madanapalle	Senior Assistant Professor	04/08/2018 to 30/06/2022
3.	R V College of Engineering	Assistant Professor	05/09/2022 to Till date

Publications & Patents

Journal Publications

1. **P. Panigrahy** and P. Chattopadhyay (2021) "Tri-axial vibration based collective feature analysis for decent fault classification of VFD fed induction motor", **Measurement (Elsevier)**, vol. 168, 2021, Article- 108460. (**IF: 5.6**)
2. **P. Panigrahy**, D. Santra and P. Chattopadhyay (2020) "Decent fault classification of VFD fed induction motor using random forest algorithm", **Artificial Intelligence for Engineering Design, Analysis and Manufacturing (Cambridge University Press)**, 34(4), 492-504. (**IF: 1.7**)
3. **P. Panigrahy** and P. Chattopadhyay (2018) "Cascaded signal processing approach for motor fault diagnosis", **COMPEL - The international journal for computation and mathematics in electrical and electronic engineering (Emerald Publishing Limited)**, vol. 37, no. 6, 2018, pp. 2122-2137. (**IF: 1.0**)
4. **P. Panigrahy** and P. Chattopadhyay (2018) "Improved Classification by Non Iterative and Ensemble Classifiers in Motor Fault Diagnosis", **Advances in Electrical and Computer Engineering**, vol. 18, no. 1, 2018, pp. 95-104. (**IF: 1.22**)

Conference Papers

1. K Dhananjay Rao, Manasa Taddi, Tharun Sriramula, Dilip Kumar Baliga, Akhil Simhadri, **P. S. Panigrahy**, "Detection of Cyber Attacks on Wireless BMS of Electric Vehicles using Long Short-Term Memory Networks", 2023 7th International Conference on 'Computational Systems and Information Technology for Sustainable Solutions [CSITSS — 2023], Bengaluru, 2023.
2. Swati Patil, SG Srivani, **P. S. Panigrahy**, TK Nagaraju, Bhoopendra Kumar Singh, Vinod Chippalkatti, "Design and Implementation of Triple Output Flyback Converter for Space Applications", 2023 7th International Conference on 'Computational Systems and Information Technology for Sustainable Solutions [CSITSS — 2023], Bengaluru, 2023.
3. R. Mukhopadhyay, **P. S. Panigrahy**, G. Misra and P. Chattopadhyay, "Quasi 1D CNN-based Fault Diagnosis of Induction Motor Drives," 2018 5th International Conference on Electric Power and Energy Conversion Systems (EPECS), Kitakyushu, Japan, 2018, pp. 1-5.
4. **P. Panigrahy**, D. Santra and P. Chattopadhyay, "Feature engineering in fault diagnosis of induction motor", 3rd International Conference on Condition Assessment Techniques in Electrical Systems (CATCON), 2017, pp. 306-310.
5. **P. S. Panigrahy**, S. Mitra, P. Konar, P. Chattopadhyay, "FPGA Friendly Fault Detection Technique for Inverter Fed Induction Motor" 2nd International Conference on Control, Instrumentation, Energy & Communication (CIEC-2016), January 28 - 30, 2016, pp. 120-124.
6. **P. S. Panigrahy** P. Konar, P. Chattopadhyay, "Application of Data Mining in Fault Diagnosis of Induction Motor" IEEE First International Conference on Control, Measurement and Instrumentation (CMI-2016), January 8-10, 2016, pp. 274 – 278.
7. **P. S. Panigrahy**, P.Konar, P.Chattopadhyay, "Broken Bar Fault Detection using Fused DWT- FFT in FPGA Platform", International Conference on Power, Control and Embedded Systems (ICPCES-2014), December 28-29, 2014.
8. R. Bhadra, S. Dutta, A. Kedia, S. Gupta, **P. Panigrahy**, P. Chattopadhyay, "Applied Machine Learning for Bearing Fault Prognostics" IEEE Conference on Applied Signal Processing, Dec 7-9, 2018.

Books/Book Chapters

1. **P. S. Panigrahy**, B. Sai Reddy and M. R. Harika, "Development of fuel cell based energy systems for 3-ph power development & Internet of Things", **CRC Press, Taylor & Francis Group (Book Chapter), 2021.**
2. P. Konar, **P. S. Panigrahy**, P. Chattopadhyay (2015) "Tri-Axial Vibration Analysis using Data Mining for Multi class Fault Diagnosis in Induction Motor", In: Prasath R., Vuppala A., Kathirvalavakumar T. (eds) Mining Intelligence and Knowledge Exploration. Lecture Notes in Computer Science, vol 9468. **Springer**, Cham.

Awards & Recognitions

- Awarded Institute Fellowship (Senior Research Fellowship) from Indian Institute of Engineering Science and Technology, Shibpur. 2015.
- Received Best Paper award in International Conference on Control, Instrumentation, and Energy & Communication (CIEC)-2016, from “Fault Analysis” section. 2016.

Student Supervision

- Ph.D. Candidates: --
- M.Tech/M.Sc. Students: 03
- Undergraduate Research Mentees: 25

Professional Roles

- Editorial Board: --
- Chair/Committee Member:
- Convenor: CSITSS 2023 “ 7th International Conference CSITSS 2023.
- Coordinator (Print): CSITSS 2024

Teaching

Core Courses: [6th and 2nd Semester]

- [EE363IA] POWER SYSTEM ANALYSIS
- [EE123AT] BASIC ELECTRICAL ENGINEERING

Advanced/Lab Courses:

- POWER SYSTEM ANALYSIS LAB
- POWER ELECTRONICS LAB
- ELECTRICAL MACHINES LAB

Professional Roles

Responsibilities

- Academic: PG UNIT COORDINATOR
- Administrative: BoE committee member

External Connect

- Member of BoE