List of Publications

The following works related to this thesis have been published in the following journals and conferences:

1. **A. C. Jahagirdar** and K. K. Gupta, "Cumulative Distribution Sharpness Profiling Based Bearing Fault Diagnosis Framework Under Variable Speed Conditions," in IEEE Sensors Journal, vol. 21, no. 13, pp. 15124-15132, 2021, doi: 10.1109/JSEN.2021.3072368.

2. **A. C. Jahagirdar** and K. K. Gupta, "Fractional envelope to enhance spectral features of rolling element bearing faults," in Journal of Mechanical Science and Technology, vol. 34, pp. 573–579, 2020, https://doi.org/10.1007/s12206-020-0105-8

3. **A. C. Jahagirdar** and K. K. Gupta, "Particle swarm optimization-based kurtosis maximization in fractional Hilbert transform for bearing fault diagnosis," in Life Cycle Reliab Saf Eng vol. 7, pp. 285–290, 2018, https://doi.org/10.1007/s41872-018-0063-7

4. **A. C. Jahagirdar** and K. K. Gupta, "Diagnosability Index and Its Application to Bearing Fault Diagnosis," in Proceedings of the 6th National Symposium on Rotor Dynamics, Lecture Notes in Mechanical Engineering, Springer, Singapore, pp.

351-359, 2020, https://doi.org/10.1007/978-981-15-5701-9_29

5. **A. C. Jahagirdar**, Satish Mohanty and K. K. Gupta, "Bearing fault analysis using kurtosis and wavelet based multi-scale PCA," in Vibroengineering PROCEDIA, vol. 22, pp. 36-40, 2019, https://doi.org/10.21595/vp.2019.20560

6. **A. C. Jahagirdar**, Satish Mohanty and K. K. Gupta, "Study of noise effect on bearing vibration signal based on statistical parameters," in Vibroengineering PROCEDIA, vol. 21, pp. 26-31, 2018, https://doi.org/10.21595/vp.2018.20373

7. **A. C. Jahagirdar** and K. K. Gupta, "Comparative Study of Cepstral Editing and Unitary Sample Shifted Probability Distribution Function Method," in Reliability and Risk Assessment in Engineering, Proceedings of INCRS 2018, pp.165-170, doi: 10.1007/978-981-15-3746-2

Brief Biography of the Candidate

Jahagirdar Ankush Chandrakant received his Bachelor of Technology (Instrumentation Enginerring) degree in 2010, from Shri Guru Gobind Singhji Institute of Engineering and Technology, Nanded, India and Master of Technology (Electronics and Instrumentation Engineering) in 2015 from National Institute of Technology, Rourkela, India. He worked as a Programmer Analyst at Cognizant Technology Services, Pune, India. He joined Department of Electrical and Electronics Engineering, Birla Institute of Technology & Science, Pilani as Assistant Professor in 2016 and registered to pursue his Doctor of Philosophy (Ph.D.) degree under the supervision of Prof. Karunesh Kumar Gupta. His current research interests include signal processing, machinery condition monitoring and fault diagnosis.

Brief Biography of the Supervisor

Dr. Karunesh Kumar Gupta is Associate Professor in Department of Electrical and Electronics Engineering at Birla Institute of Technology and Science Pilani, Pilani Campus. He received his Ph.D. degree from BITS Pilani, Pilani Campus in area of digital image processing in the year of 2008. He joined Electrical and Electronics Engineering Department of BITS Pilani, Pilani Campus in July 1999. Prior to joining BITS, he was working in industries (EMA India Limited, Kanpur; LML Scooter Pvt Ltd, Kanpur; DEUTEK Controls (India) Ltd, New Delhi; MESSUNG Systems Pvt Ltd, Pune) and had been involved in designing, fabrication, installation and commissioning of Process plant; Machine and Factory Automation work. His areas of interests are digital image processing, vibration and acoustic signal processing, drinking water quality sensors, Biometrics. So far he has published many research papers in national and international conferences and journals. He has been working on government funded sponsored research and development projects related to drinking water sensors and quality index; Cyber physical systems. In the last 25 years he has been associated with BITS-Pilani and many industries. He is senior member of the Institute of Electrical and Electronics Engineers (IEEE), Fellow of Institution of Engineers IE (India), life member of IETE, ISRS, and IAMI.

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