


<b>Dr. Manoj Kumar Panda</b>			
Designation	Professor		
Dept.Name	Electrical Engineering		
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SubjectsTaught	Intelligent Systems, Control Systems, Modern Control System, Basic Electrical Engineering		
Areas of Interest/Specialization	Soft computing applications in Engineering, Fuzzy Control Systems, Power and control, Renewable Energy		
Experience(in years)	Total	23	
	Industry	02	
	Teaching	17	
	Research	04	
Educational Qualifications	UG	B.E (Electrical Engineering), Utkal University, Bhubaneswar, 1998	
	PG	M.E (Control & Instrumentation), MNNIT Allahabad, 2002	
	Doctorate	Ph.D (Power and Control), I.I.T Roorkee, 2014	
	Any other	----	
Research Publications in Journals	<ol style="list-style-type: none"> <li>1. Manoj Ku. Panda, G. N. Pillai &amp; Vijay Kumar “An Interval Type-2 Fuzzy logic controller design for AVR system” published in <i>Electric Power Components and Systems of Taylor and Francis</i>. Vol. 40, no. 2. pp. 219-235, 2012 (SCI).</li> <li>2. Manoj Kumar. Panda, G. N. Pillai &amp; Vijay Kumar “Power System stabilizer design using interval type-2 Fuzzy logic control” Published in <i>International Review of Electrical Engineering</i> Vo. 7, N. 6, pp. 6252-6265, Dec. 2012 (SCOPUS).</li> <li>3. Manoj Kumar. Panda, G. N. Pillai &amp; Vijay Kumar an Interval Type-2 Fuzzy logic controller for TCSC to improve the damping of power system oscillations. Published in <i>Frontiers in Energy (Springer)</i>, DOI 10.1007/s11708-013-0269-3, Vol. 7, no.3, PP. 307-316, 2013, (SCI).</li> <li>4. Manoj Kumar Panda, G. N. Pillai &amp; Vijay Kumar “Interval type-2 fuzzy logic controller design for TCSC”, published in <i>Evolving Systems (Springer)</i>, DOI 10.1007/s12530-013-9097-2, Vol. 5, PP. 193-208, 2014 (SCI).</li> <li>5. Aviral Awasthi, S K Gupta and M K Panda “Design of a Fuzzy Logic Controller Based STATCOM for IEEE9 Bus System” published in <i>European journal of</i></li> </ol>		

*Advances in Engineering & Technology*, Volume 2, Issue 4, pp. 62-67, 2015, (SCOPUS).

6. Jogendra Kumar, Annapurna Singh, M. K. Panda and H. S. Bhaduria “ Constant bit rate based simulation performance on Routing Protocols in Mobile Adhoc Networks” published in *European journal of Scientific Research*, Volume 134, no. 3, pp. 325-335, Sept. 2015 (SCOPUS).
7. Navneet Kaushal, Vithika Joshi and M. K. Panda “A Review on Controlling the Voltage and Reactive Power of Multi-Machine System using Fuzzy Logic Controller based STATCOM, published in *International Journal of Advanced search in Computer Science and Software Engineering*, Vol. 6, no. 12, pp.254-258, Dec. 2016
8. Mamta Chamoli, Manoj Panda and Priyanka Anand “Provisional Micro Grid for the perfect power system” Published in *Asian Journal of convergence in Technology*, Vol. 3, issue 2, ISSN No.:2350-1146
9. Swati Rawat, Bhola Jha & Manoj Panda “Operation and Control of a Hybrid Isolated Power System with Type-2 Fuzzy PID Controller" published in *Iranian Journal of Science and Technology, Transactions of Electrical Engineering (Springer)*, Vol. 42, issue 4, pp. 403-417. Dec. 2018 (SCI).
10. Abhishek Dhyani, Manoj Panda & Bhola Jha “Moth-Flame Optimization based Fuzzy-PID Controller for Optimal Control of Active Magnetic Bearing System” published in *Iranian Journal of Science and Technology, Transactions of Electrical Engineering (Springer)* Vol. 42, issue 4, pp. 451-463. Dec. 2018 (SCI).
11. B. B. Rath, Nishant Kumar, Manoj Panda & Bhola Jha “ Centroid Analogy Based MPPT Technique for Uniformly Shaded Solar Photovoltaic Array", published in *Iranian Journal of Science and Technology, Transactions of Electrical Engineering*, December 2019, (*Springer*) Volume 43, [Issue 4](https://doi.org/10.1007/s40998-019-00267-7), pp 929–939, <https://doi.org/10.1007/s40998-019-00267-7> (SCI).
12. Gambhir Singh Kathait, M. K. Panda & N. S. Panwar “Effect of Modified Two-step Sintering Approaches on Potassium Tantalum Niobate–Barium Titanate (KTN-BT) Ceramics and Their Dielectric and Piezoelectric Properties” published in *Science of Sintering*, Vol. 52(2020), pp. 1-11, (SCI).
13. Abhishek Dhyani, Manoj Kumar Panda & Bhola Jha “Design of an evolving Fuzzy-PID Controller for optimal trajectory control of a 7-DOF Redundant Manipulator with prioritized sub-tasks” accepted for publication, published in *Expert Systems With Applications*, <https://doi.org/10.1016/j.eswa.2019.113021> , Vol. 162, no. 10 (*Elsevier*) (SCI).
14. Gambhir Singh Kathait, M. K. Panda & N. S. Panwar “Preparation of potassium tantalum niobate–barium titanate (KTN-BT) solid solution system ceramics and their piezoelectric properties” *Ferroelectrics* , of *Taylor and Francis* [Volume 555, Issue 1](https://doi.org/10.1080/00143042.2020.1811111), 2020 (SCI).
15. Swati Rawat , Bhola Jha , Manoj Kumar Panda and Jyotshana Kanti “Interval Type-2 Fuzzy Logic Control-Based Frequency Control of Hybrid Power System Using DMGS of PI Controller” *Applied Sciences of MDPI* **2021**, 11, 10217. <https://doi.org/10.3390/app112110217> (SCI).
16. B. B. Rath, Manoj Panda, Bhola Jha et.al. Photovoltaic partial shading performance evaluation with a DSTATCOM controller” *IEEE Access* **2022**, Vol. 10 2022. pp. 69041-69052, 2022, doi: 10.1109/ACCESS.2022.3186906 (SCI).
17. Gorav Kumar Malik, Yatindra Kumar & Manoj Panda “ Multiclass arrhythmia classification based on support vector machine optimized by grasshopper optimization algorithm” *Indian journal of computer science & Engineering*, Vol. 13, no.2, pp.525-535 (SCOPUS).

	<p>18. Gorav Kumar Malik, Yatindra Kumar &amp; Manoj Panda “Reduced features with RBF-SVM for diagnosing multiclass arrhythmia” <b>International journal of Mechanical Engineering</b>, 2022, Vol.7, ( Special issue, Jan.-Feb. 2022), pp.291-298 (SCOPUS).</p> <p>19. Rana, A.; Dumka, A.; Singh,R.; Panda, M.K.; Priyadarshi, N.; Twala, B. Imperative Role of Machine Learning Algorithm for Detection of Parkinson’s Disease: Review, Challenges and Recommendations. <b>Diagnostics</b> 2022, 12, 2003. <a href="https://doi.org/10.3390/diagnostics12082003">https://doi.org/10.3390/diagnostics12082003</a> (SCI).</p> <p>20. Rana, Arti, Ankur Dumka, Rajesh Singh, Mamoon Rashid, Nazir Ahmad, and Manoj Kumar Panda. "An Efficient Machine Learning Approach for Diagnosing Parkinson’s Disease by Utilizing Voice Features." <b>Electronics</b> 11, no. 22 (2022): 3782 (SCI).</p> <p>21. Rana, A., Dumka, A., Singh, R., Panda, M. K., &amp; Priyadarshi, N. (2022). A Computerized Analysis with Machine Learning Techniques for the Diagnosis of Parkinson’s Disease: Past Studies and Future Perspectives. <b>Diagnostics</b>, 12(11), 2708 (SCI).</p>
Papers Published in Conference Proceedings	<ol style="list-style-type: none"> <li>1. Manoj Kumar Panda, M. L. Dewal &amp; Abhishek Bisht “Speed control of induction motor drive using Fuzzy-Neural Network Controller” in proceeding of international conference on communication &amp; technology, IICT-2007 held at DIT- Dehradun from 26<sup>th</sup> - 28<sup>th</sup> July 2007.</li> <li>2. Manoj Kumar Panda &amp; V. M. Mishra “Analysis of Static Security and Dynamic Stability of the UPFC using Genetic Algorithm” in proceeding of RAEEE-09, 23-24 Dec. 2009, NIT Hamirpur</li> <li>3. Anupam Kumar, Manoj Ku. Panda &amp; Vijay Kumar “Design and Implementation of Interval type-2 single input fuzzy logic controller for Magnetic levitation System” Proceedings of ICAdC, pp. 833–840. Springer from 4-6 July 2012.</li> <li>4. Manoj Kumar. Panda, G. N. Pillai &amp; Vijay Kumar “Interval Type-2 Fuzzy logic Controller as a Power System Stabilizer” APCET 2012, 2-4<sup>th</sup> Aug 2012., 978-1-4673-2043-6/12/\$31.00 ©2012 IEEE(Presented)</li> <li>5. Manoj Kumar. Panda, G. N. Pillai &amp; Vijay Kumar “Power System stabilizer design: Interval Type-2 fuzzy logic controller approach” Proc. of 2<sup>nd</sup> IEEE international conference of power control and embedded systems, ICPCES- 2012 at Allahabad, 17-19<sup>th</sup> Dec. 2012 pp. 374-383(Presented).</li> <li>6. Manoj Kumar. Panda, G. N. Pillai &amp; Vijay Kumar “Comparative Performance analysis of Particle Swarm Optimization and Interval Type-2 Fuzzy logic based TCSC controller design” Accepted and presented at SocPros 2012, at Jaipur from Dec. 28-Dec.30, 2012. Book Chapter of Advances in Intelligent Systems and computing, Springer, Vol. 236, pp. 67-74, 2014(Presented).</li> <li>7. Anupam Kumar, M. K. Panda, S. kundu, V. Kumar “Designing of an interval type-2 fuzzy logic controller for Magnetic Levitation System with reduced rule base “ 2012 IEEE international conference on computing, communication and networking Technology (ICCCNT 2012), pp. 1-8, 26-28 July 2012.Coimbatore, India, DOI: <a href="https://doi.org/10.1109/ICCCNT.2012.6395883">10.1109/ICCCNT.2012.6395883</a></li> <li>8. Bhola Jha, M. K. Panda, Vishal Kushwaha &amp; Vineet Kumar Prajesh “A novel Tracking Control technique of capacitive switching for Transient Mitigation” ICEEOT 2016, pp. 1-6, DOI: 978-1-4673-9939-5/16/\$31.00 ©2016 IEEE</li> <li>9. Bhola Jha, M. K. Panda, Prafull Kumar Pandey and Lokesh Pant “PSO based online vector Controlled Induction Motor Drives” ICEEOT 2016, pp. 1-6, DOI: 978-1-4673-9939-5/16/\$31.00 ©2016 IEEE</li> <li>10. Jogendra Kumar, Annapurna Singh, M. K. Panda and H. S. Bhaduria “Study and Performance Analysis of Routing Protocol Based on CBR” Procedia Computer Science of Elsevier, 85 (2016), pp. 23 – 30.</li> </ol>

	<p>11. Swati Rawat, Bhola Jha &amp; M. K. Panda “Load Frequency Control of a Renewable Hybrid Power System with Simple Fuzzy Logic Controller” ICCCA 2016 at GU, U.P. India, 29<sup>th</sup>-30<sup>th</sup> April 2016, ISBN: 978-1-5090-1666-2/16/\$31.00 ©2016 IEEE(Presented).</p> <p>12. Gorav Kumar Malik, Yatindra Kumar &amp; Manoj Panda “Cardiac arrhythmia detection in ECG signals by feature Extraction and support vector machine” Proceedings of the Second International Conference on Research in Intelligent and Computing in Engineering pp. 241–244, ACSIS, Vol. 10 ISSN 2300-5963, DOI: 10.15439/2017R63.</p> <p>13. Jyotsna Bhandari, Agya Ram Verma, Yashvir Singh &amp; Manoj Kumar Panda “Dark &amp; Low Contrast Satellite image enhancement using DWT-SVD based on Fuzzy Logic Technique” IEEE conference Proceedings for International conference on Electrical, Electronics, Computers, Communication, Mechanical &amp; Computing (EECCMC), 28-29<sup>th</sup> Jan. 2018, pp. 388-392.</p> <p>14. Prakash K. Ray, Shiba R. Paital, Lalit Kumar, Bhola Jha, Sanjay Gairola &amp; Manoj Kumar Panda “ Stability Improvement in Power System Integrated with WECS Using Dolphin Echolocation Optimized Hybrid PID Plus FLC-Based PSS” Innovation in Electrical Power Engineering, Communication, and Computing Technology 2020. Lecture Notes in Electrical Engineering, vol 630. Springer, Singapore, Pages 697-708.</p> <p>15. Ranjeet Kumar, Agya Ram Verma , Manoj Kumar Panda, and Papendra Kumar “ HRV Signal Feature Estimation and Classification for Healthcare System Based on Machine Learning “ MIND 2020, Communication in Computer and information science, Springer Vol. 1241, pp. 437-448</p> <p>16. Indrajeet Kumar, Jitendra Virmani, Harvendra. S. Bhadouria, Manoj K Panda &amp; Kirti “Classification of breast density patterns using PNN, NFC and SVM classifier” in <i>Book Chapter 13 of Soft computing based Medical image analysis of Elsevier 2018, pages: 223-243</i></p> <p>17. B. B. Rath, M. K. Panda, Bhola Jha &amp; Swati Rawat “Particle swarm optimization based intelligent controller for maximum power point tracking of a standalone solar photovoltaic power system” <i>Intelligent computing in control and communication 2021 (pp. 545-557), Springer, Lecture notes in Electrical Engineering.</i></p> <p>18. Gorav Kumar Malik, Y. Kumar Y &amp; M. K. Panda M. (2021). ”Multi-kernel SVM Approach for Arrhythmia’s Classification”. Proceedings of Integrated Intelligence Enable Networks and Computing”. <i>Algorithms for Intelligent Systems. Springer, Singapore. <a href="https://doi.org/10.1007/978-981-33-6307-676">https://doi.org/10.1007/978-981-33-6307-676</a></i></p>
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Books Authored/Book Volume Chapters	1. Anupam Kumar, Manoj Ku. Panda & i & Vijay Kumar “ <a href="#">Tracking Performance of Maglev System Using Type-2 Fuzzy Logic Control</a> ” Lambert Academic Publishing, Germany, Published online 13/6/2012.
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No.of Conferences	National	Attended 02	Organized 01
	International	05	02
Research Guidance	Awarded	PG 03	Doctorate 03

	Undergoing		03
Research Projects	Completed	03	
	Undergoing	--	
Awards & Distinctions	<ul style="list-style-type: none"> <li>• Best faculty Award for the Year 2009 in G. B. Pant Engg. College, Pauri honoured by the Chairman Board of Governor, the then Honorable Chief Minister of Uttarakhand.</li> <li>• Biography selected for publication in 32<sup>nd</sup> edition of Marquis Who's Who in the world, USA</li> <li>• Member of National Board of accreditation (NBA) Expert team of Govt. of India.</li> </ul>		
Administrative Assignments Handled	<ul style="list-style-type: none"> <li>• State Project Administrator Basic Pay: Rs. 193800.00 (Level 14) in State Project Implementation unit (SPIU) Dehradun, a unit of MHRD Govt. of India for the Implementation of TEQIP-III Project from 11<sup>th</sup> Oct. 2018 to 30<sup>th</sup> Sept. 2021.</li> <li>• Coordinator of TEQIP I (A World Bank Project) from July 2005 to July 2010.</li> <li>• Coordinator of TEQIP II (A World Bank Project) from Aug. 2013 to July. 2017.</li> <li>• Coordinator of TEQIP III (A World Bank Project) from July. 2017 to Oct. 2018.</li> <li>• Registrar (I/C) GBPIET Pauri Uttarakhand from March 2018 to Aug. 2018.</li> <li>• DY. O/C Training &amp; Placement during 2005-2006.</li> <li>• Warden Kailash Boys hostel during 2009-2010</li> <li>• Warden Neelkantha Boys Hostel from Aug. 2015 to Jan. 2017.</li> <li>• O.I.C Training &amp; Placement from Nov. 2021.</li> </ul>		
Association with Professional Bodies	<ul style="list-style-type: none"> <li>• Fellow Institution of Engineers (India) (Membership No: F-1277304)</li> <li>• Senior member IEEE, M. No: 922160022</li> <li>• Member of International Association of computer science and information Technology (IACSIT) M. No-80339514</li> <li>• Member of International Association of Engineers (IAENG), M. No-105845</li> <li>• Member of Automatic Control and Dynamic Optimization Society (ACDOCS)</li> </ul>		
Any other Achievements			