

## ***Dr. Manas Ranjan Patra***

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**Research Areas:** Artificial Intelligence, Applications of Data Mining/Machine learning, Privacy preservation in Social Networks, Service Oriented Modeling

**Educational Qualification:** Ph.D. in Computer Science (Central University of Hyderabad)

**Work Experience:** 34 years of teaching and research in Computer Science

Position	Organization	Period
Lecturer	Berhampur University	1987-1995
Lecturer (Sr. & SG)	Berhampur University	1995 - 2002
United Nations Research Fellow	International Institute for Software Technology United Nations University, Macau, China	2000
Assistant Professor	Institute for Development & Research in Banking Technology, (Reserve Bank of India) Hyderabad (on lien)	2005 - 2006
Reader	Berhampur University	2002 - 2016
Professor	Berhampur University	Since January 2016

## **Ph.D. Thesis Supervision:**

Name of the Student	Title of the Thesis	Year of Completion
Bipin Bihari Jayasingh	<i>An Agent Based Approach to Cyber Forensics</i>	2007
Mrutyunjaya Panda	<i>A Data mining Approach to Anomaly based Intrusion Detection</i>	2010
Ramakanta Mohanty	<i>Application of Machine Learning &amp; Soft Computing techniques to software engineering</i>	2011
K V S N Rama Rao	<i>Modeling &amp; Designing of Intrusion Detection Systems</i>	2012

K Hemant Kumar Reddy	<i>An Automated Performance Tuning Framework for Scheduling Computational Jobs in Desktop Grid Environment</i>	2014
Rama Krushna Das	<i>A Service Oriented Design Approach for Developing E-Governance Applications</i>	2015
Rabi Prasad Padhy	<i>Cloud Based Approach for Effective Utilization of Computing Resources in Large Enterprises</i>	2015
Ashalata Panigrahi	<i>Application of Soft Computing Techniques to Network Intrusion Detection</i>	2015
V Mohan Patra	<i>A Study on Knowledge Discovery using data Mining Techniques</i>	2017
Jagannath Sahu	<i>Design and Path Planning of Vision based Autonomous Mobile Robot using Image Processing Technique</i>	2017
Rajesh Kumar Sahoo	<i>Application of Optimization Techniques to Model based Software Testing for Maximal Test Coverage</i>	2019
Pabitranda Patnaik	<i>A Study on Software Quality Assurance for Electronic Governance Projects</i>	2019
Sunil Kumar Nahak	<i>Development of Test Strategies for Service Oriented Systems</i>	2021
Debasis Mohapatra	<i>An Anonymization based Approach for Privacy Preservation in Social Networks</i>	2021
Manas Kumar Nanda	<i>Some Approaches to Developing Security Models for Cloud based Systems</i>	Submitted
Swarupananda Bissoyi	<i>Recommending Similar Patients in a Social Network of Patients using Medical Knowledge Bases</i>	Pre-Submission Presentation Completed
Bikash Ranjan Bag	<i>Development of Speech to Text Generation System for Odia Language</i>	Under Progress
Satyananda Swain	<i>A Software Agent Oriented Framework for Blockchain Enabled Supply Chain Management</i>	Under Progress
Amar Ranjan Dash	<i>Web Personalization for Providing Accessibility to Visually Impaired Persons</i>	Under Progress

## Research Publications:

- [1] Mohapatra D. & **Patra M.R.**, “LBS based framework to obstruct linking attack in data releases”, *Multimedia Tools Appln* (2019) 78: 33805–33835, DOI: {HYPERLINK "https://doi.org/10.1007/s11042-019-08068-0" \h}.
- [2] Mohapatra, D. & **Patra M.R.**, “Anonymization of attributed social graph using anatomy based clustering”, *Multimedia Tools Appln* (2019) 78: 25455–25486, DOI:

- {HYPERLINK "https://doi.org/10.1007/s11042-019-07745-4" \h}.
- [3] Panigrahi A & **Patra M R**, “Anomaly Based Network Intrusion Detection Using Bayes Net Classifiers”, International Journal of Scientific & Technology Research (Scopus), Vol. 8, Issue 9, September 2019, pp. 481 – 485, ISSN 2277-8616.
  - [4] Panigrahi A & **Patra M R**, “Intrusion Detection using Rule Learning based Classifiers”, International Journal of Applied Engineering Research (Scopus), Vol 14, No. 17 (2019) pp. 3616-3621, ISSN 0973-4562, © Research India Publications, October 2019
  - [5] Panigrahi A & **Patra M R**, “Intrusion Detection Using Tree Based Classifiers”, International Journal of Computer Trends and Technology, Vol. 68, Issue 2, Feb 2020, pp. 59 – 63, ISSN: 2231-2803
  - [6] Mohapatra D. & **Patra M.R.**, “Cluster-Based Anonymization of Assortative Networks”. In: Behera H., Nayak J., Naik B., Pelusi D. (eds) Computational Intelligence in Data Mining. Advances in Intelligent Systems and Computing (2020), vol 990. Springer, Singapore, DOI: {HYPERLINK "https://doi.org/10.1007/978-981-13-8676-3\_60" \h}
  - [7] Mohapatra D. & **Patra M.R.**, “A graph based approach for privacy preservation of citizen data in e-governance applications”, DG.O 2019: 433-438, DOI: { HYPERLINK "https://doi.org/10.1145/3325112.3325254" \h}
  - [8] Mohapatra D. & **Patra M.R.**, “Rank Consensus between Importance Measures in Hypergraph Model of Social Network”, FICTA 2020.
  - [9] **M. R. Patra**, D. Mohapatra, “Privacy Preservation of e-Governance Data Using Local Beam Search”, ACM Proc. ICEGOV 2018, Galway, Ireland, April 2018.
  - [10] **M. R. Patra**, Amar R Dash, “Accessibility of Indian Government Web Portals with respect to WCAG 2.0 and GIGW Guidelines” ACM Proc. ICEGOV 2018, Galway, Ireland, April 2018.
  - [11] Amar R Dash, **M. R. Patra**, "Ensuring Quality of Web Portals Through Accessibility Analysis", In the Book: Learner Experience and Usability in Online Education. IGI Global Pub. USA, pp. 194-234, 2018.
  - [12] Ashalata Panigrahi, **M. R. Patra**, "Network Intrusion Detection using Neural Network Based Classifiers". International Journal of Computer Trends and Technology (IJCTT) V59(3):121-125, 2018. ISSN:2231-2803.
  - [13] Ashalata Panigrahi, **M. R. Patra**, “Fuzzy Rough Set Based Network Intrusion Detection with Wrapper Subset Evaluator”, International Journal of Engineering Science Invention (IJESI), Volume 7 (2), pp. 51-57, 2018, ISSN: 2319 – 6726.
  - [14] M. Parhi, B. K. Pattanayak, **M. R. Patra**, “An ontology-based cloud infrastructure service discovery and selection system”, International Journal of Grid and Utility Computing, InderScience Pub., Vol.9, No.2, pp.108 – 119, 2018.
  - [15] M. Parhi, B. K. Pattanayak, **M. R. Patra**, “A multi-agent-based framework for cloud service discovery and selection using ontology”, Service Oriented Computing & Applications, Springer London Pub., Volume 12, Issue 2, pp 137–154, June 2018.
  - [16] D. Mohapatra, **M. R. Patra**, “ { HYPERLINK "https://link.springer.com/article/10.1007/s13278-017-0470-1" \h } { HYPERLINK "https://link.springer.com/article/10.1007/s13278-017-0470-1" \h}”, Social Network Analysis & Mining (SNAM) Volm. 7 (1) 50:1- 50:13, 2017, Springer.
  - [17] D. Mohapatra, **M. R. Patra**, “{HYPERLINK "https://link.springer.com/chapter/10.1007/978-981-10-8055-5\_14" \h}”, ICCIDM-2017, AISC, vol. 711, Springer, pp. 145-154.

- [18] Panigrahi, A and **Patra, M.R.** (2015). An ANN based Approach for Network Intrusion Detection Using Entropy based Attribute Reduction. *International Journal of Network Security and its Applications*, 7(3), 15-29, ISSN: 0974-9330 (Online), 0975-2307(Print), DOI :10.5121/ijnsa.2015.7302.
- [19] Patro, V. M., **Patra, M.R.** (2015). A Novel Approach to Compute Confusion Matrix for Classification of n-Class Attributes with Feature Selection. *Transactions on Machine Learning and Artificial Intelligence*, UK, 3(2), 52-64, ISSN: 2054-7390.
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- [23] Panigrahy, T.P., **Patra, M.R.** (2015). An agent based service oriented model for supply chain management. *International Journal of innovations and advancement in computer science*, vol. 4, special issue, ISSN 2347-8616.
- [24] Panigrahy, T.P., **Patra, M.R.** (2015). A Service oriented agent based workflow for business process coordination. *International Journal of Applied Engineering Research*, 10(2), 3029-3048, ISSN. 0973-4562.
- [25] Das, T.K., Acharjya, D.P., **Patra, M.R.** (2015). General Characterization of Classifications in Rough set on two universal sets. *Information Resources Management Journal*, 28(2), 1-16, DOI:10.4018/IRMJ.2015040101. Scopus, ISSN: 1040-1628, 1533-7979.
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- [29] Mohapatra, D., **Patra, M.R.** (2015). k-degree Closeness Anonymity: A Centrality Measure Based Approach for Network Anonymization”, *Proceedings of the 11<sup>th</sup> International Conference, ICDCIT 2015*, (pp. 299-310). Bhubaneswar: Springer, ISBN 978-3-319-14976-9. Scopus, ACM Digital Library.
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*Computing, Communication and Devices, ICCD 2014*, 1, (pp. 357-370), Bhubaneswar: Springer. ISBN: 978-81-322-2011-4. ACM Digital Library.

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- [100] Das, R.K., **Patra, M. R.** (2010). Integrating WebGIS with service oriented rural information grid: experience sharing. *Proceedings of the 4th International Conference on Electronic Governance*. ICEGOV-2010. (pp. 161-166). Beijing: ACM. DOI: 10.1145/1930321.1930355 ISBN: 978-1-4503-0058-2.

## Books:

- [101] Panda, M., **Patra, M.R.** (2014). Soft Computing: Concepts and Techniques, India: University Science Press. ISBN: 978-93-81159-66-8.
- [102] Panda, M., Dehuri, S., **Patra, M.R.** (2015). { [HYPERLINK "http://www.narosa.com/books\\_display.asp?catgcode=978-81-8487-442-6"](http://www.narosa.com/books_display.asp?catgcode=978-81-8487-442-6) \h } Theory and Practice. India: Narosa Publishing. ISBN: 978-81-8487-442-6.

## Book Chapters

- [103] Panda, M., **Patra, M.R.** (2014). Characterizing intelligent intrusion detection and prevention systems using data mining, *In the book: Advance in secure computing, internet services and applications*, IGI Global, USA, 89-102. ISBN 978-1-466-4940-8.
- [104] Panda, M., **Patra, M.R.** (2013). Building Recommender Systems for network intrusion detection using intrusion decision technologies, *In the book: Intelligent techniques in Recommendation systems*, IGI Global, USA, 49-62. ISBN: 978-1-4666-2542-6.
- [105] Panda, M., Abraham, A., Dehuri, S., **Patra, M.R.** (2012). Performance Evaluation of Social Network using data mining techniques, *In the book: Computational Social network: Mining and Visualization*, London: Springer-Verlag. DOI 10.1007/978-1-4471-4054-2-2.
- [106] Mohanty, R. Ravi, V., **Patra, M.R.** (2011). Application of Machine Learning Techniques to Predict Software Reliability, *In the book: Machine Learning: Concepts, Methodologies, Tools and Applications*, IGI Global, USA, 354-370. ISBN: 978-1-60960-820-0.
- [107] Panda, M., **Patra, M.R.** (2010). Mining Knowledge from Network Intrusion Data using Data Mining Techniques, *In the book: Knowledge Mining using Intelligent Agents*, Imperial College Press, London, 161-200. ISBN:978-1-84816-386-7.

## University Administration:

Position Held	Period
Director, BPCC Computer Centre	2012-2018
Director, Human Resource Development Centre	2018-2020
Director, Internal quality Assurance Cell	2020 onwards
Head, Department of Computer Science	2019 onwards
Chairman, Board of Studies, Computer Science	2019 onwards
Dean, Faculty of Science & Technology	2021 onwards

## Member of Committees in University and outside:

Committee	Institution
Regulation Committee	Berhampur University
Academic Council	Berhampur University
Admission Committee	Berhampur University
Board of Studies, Computer Science	Berhampur University
Board of Studies, Computer Science	Central University Koraput
Board of Studies, Computer Science	KIIT University
Board of Studies, Computer Science	Khallikote Autonomous College
Board of Studies, Computer Science & Engg	NIST, Berhampur

## Conferences Attended Abroad:

Name of the Event	Purpose of Visit
10 <sup>th</sup> International Conference on Theory & Practice of Electronic Governance (ICEGOV 2018), University of Ireland & UNU-EGov, <b>Ireland</b> , April 4-6, 2018	Presented a paper
8 <sup>th</sup> International Conference on Theory & Practice of Electronic Governance (ICEGOV 2014), Guimaraes, <b>Portugal</b> , Oct 27-30, 2014	Presented a paper
7 <sup>th</sup> International Conference on Theory & Practice of Electronic Governance (ICEGOV 2013), <b>Seoul, Korea</b> , Oct 22-25, 2013	Presented a paper
6 <sup>th</sup> International Conference on Theory & Practice of Electronic Governance (ICEGOV 2012), <b>Albany, New York</b> , USA, Oct 22-25, 2012	Presented a paper
International Workshop on Challenges and Prospects of E-Government: Legal Framework, Information Management and Citizen Participation, <b>Shanghai, China</b> , June 13-14, 2012	Invited Talk
5 <sup>th</sup> International Conference on Theory & Practice of Electronic Governance (ICEGOV 2011), <b>Tallinn, Estonia</b> , Sept 26-29, 2011	Presented a paper
4 <sup>th</sup> International Conference on Theory & Practice of Electronic Governance (ICEGOV 2010), <b>Beijing, China</b> , Oct 25-28, 2010	Presented a paper
International Conference on Neural Information Processing (ICONIP 2009), <b>Bangkok</b> , Dec 1-5, 2009	Presented a paper
2 <sup>nd</sup> International Conference on Theory & Practice of Electronic Governance (ICEGOV 2008), <b>Cairo, Egypt</b> , Dec 1-4, 2008	Presented a paper
1 <sup>st</sup> International Conference on Theory & Practice of Electronic Governance (ICEGOV 2007), <b>Macao</b> , Dec 10-13, 2007	Presented a paper

8<sup>th</sup> Asia-Pacific Software Engineering Conference (APSEC 2001), **Macao**, Dec 4-7, 2001 Presented a paper

4<sup>th</sup> International Conference on Design of Information Infrastructure Systems for Manufacturing, **Melbourne, Australia**, Nov 15-17, 2000 Presented a paper & Session Chair