Curriculum Vitae

Dr. SUCHISMITA CHINARA
Assistant Professor, Gr-I
Department of Computer Science and Engineering
National Institute of Technology Rourkela, Odisha, India
E-mail: suchismita@nitrkl.ac.in, suchi.nitrkl@gmail.com
Contacts: +91-661-2462361 (o), +919437116795
https://www.nitrkl.ac.in/CS/~**suchismita/**
ORCID ID: https://orcid.org/0000-0002-2766-7820
Web of Science ResearcherID: N-6228-2017
DoB : 28th June 1972

1. EDUCATIONAL QUALIFICATION

- **Ph.D** (Computer Science Engg., 2011, NIT Rourkela)
- **M.Tech** (Computer Science Engg., 74%, 2002, NIT Rourkela)
- **BE** (Computer Science Engg., 63%, 2001, IE (India), Kolkata)
- **BE** (Electronics & Telecommunication Engg., 59%, 1997, IE(India), Kolkata)
- **POST DIPLOMA** (Computer Applications, 78%, 1991, SCTE&T, Odisha)
- **DIPLOMA** (Electronics & Telecommunication Engg., 69%, 1989, SCTE&T, Odisha)
- **10+** (86%, 1986, Board of Secondary Education, Orissa)

2. PROFESSIONAL EXPERIENCE

Sl No	Period	Position and organization
1	2018 – present	Assistant Professor (Gr-I), Dept of CSE, NIT Rourkela
2	2011-2018	Assistant Professor (Gr-II), Dept of CSE,NIT Rourkela
3	2006-2011	Assistant Professor (Gr-III), Dept of CSE,NIT Rourkela

3. RESEARCH INTEREST

- Wireless Networks
- Data Communication
- Internet of Things (IoT)
- Cyber Physical Systems
- ICT based education

4. ACHIEVEMENTS AND AWARDS

- Best paper award in International conference on Information and Communication Technology for Intelligent System (ICTIS 2015), Ahmedabad, 2015
- Annapurna Memorial Award, 1989.

- Visiting faculty to Dept. of Electrical and Computer Engg, San Diego State University (SDSU), San Diego, CA, 2013.
- Guest faculty to Dept of Computer Science Engineering, Govt Engineering College Bilaspur, 2019.
- Head of A N Khosla Technology Enabled Learning Centre for 2015-17, NIT Rourkela.
- Vice President of Cultural & Literary Society of Student Activity Centre, 2010-13, NITR.
- PIC Institute lawns and gardens (Zone-3), 2011-2013.
- Member, recruitment committee, NITR since 2012.
- Member, Convocation committee, NITR since 2011.
- Member, Dept. Academic Committee, NITR 2016-17.
- Member, Dept. research committee, NITR 2017-18.
- Member, Dept. purchase committee, NITR 2018-20
- Keynote speaker, International conference on soft computing and signal processing (ICSCSP-2018), Hyderabad, 2018.
- Session Chair, International conference on soft computing and signal processing (ICSCSP-2018), Hyderabad, 2018.
- As guest faculty to Government Engineering College, Bilaspur for teaching the course Network programming during Autumn 2019 under TEQIP- III.
- Conducted a seminar on " Internet of Things: the current trends" at Chaibasa Engineering college, Jharkhand during Dec 2019.
- General Chair, International conference on advances in distributed computing and machine learning (ICADCML 2020), Vellore.
- Advisory committee member, ICAC2016, Kolkata.
- Technical session chair, Information and Communication Technology for Intelligent System (ICTIS 2015), Ahmedabad.
- Technical session chair, International Conference on Information, Communication and Signal Processing (ICICS'11), Singapore.
- Technical session chair, International Conference TRUSTCOM-2018, New York, 2018.
- Resource person in NAAC sponsored National Seminar on working culture in higher education: issues and challenges, Tentulia Sasan Debasthan College, BD Pur, Ganjam, 2018.
- Resource person, National seminar on Advances on Computing, Kaustuv Institute of Science and Technology, BBSR, 2012.
- Resource Person on Refresher course on Information Technology, Utkal University, Bhubaneswar, 2017.
- SPoC for NIT Rourkela for NPTEL since 2015.
- Best paper award in IEEE International conference on Electrical, Electronics and Computer Science (SCEECS 2020), MANIT Bhopal, 2020.
- Registration Chair, 6th IEEE WIECON-ECE 2020, 2020 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering, Bhubaneswar, 26th -27th Dec, 2020.
- Session Chair, 6th IEEE WIECON-ECE 2020, 2020 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering, Bhubaneswar, 26th -27th Dec, 2020.
- Session Chair, International Conference in Women in Multifaceted Research 2021, ICWMR 2021, 8th - 9th March, 2021.
- TPC member, Wireless Telecommunications Symposium, WTS 2021, 21st - 23rd April, San Fransisco, CA, USA.

5. PROFESSIONAL MEMBERSHIP

IEEE, LMCSI, MIE.

6. NO. OF PhDs / M.Tech (R)

- Dr. Asis Ku Tripathy: Degree awarded on **23ʳᵈ April 2016,** Design of protocols for application specific Wireless Sensor Networks.
- Dr. Manu Elappila: Degree awarded on 23ʳᵈ Sept 2020, Development of survivability protocols in wireless personal area networks for IoT applications.
- Venkat P Krishna, Degree awarded on 28ᵗʰ July 2021, Study of Single Channel EEG Signal Analysis for Drowsiness Detection Using Machine Learning
- Ranjit Kumar, Design of Clustering protocols for IoT Environment (In progress)
- Ritesh D Nikose, IoT based healthcare (In Progress)
- Pragyan Mishra, IoT in healthcare (Enrolled)
- Beas Bhadra, IoT (Enrolled)
- Soumya Nandan Mishra MTECH (R), Degree awarded

7. SPONSORED R&D PROJECT/ CONSULTANCY PROJECT HANDLED

- T10KT (A national project of MHRD under NMEICT, GoI), as remote centre coordinator for NIT Rourkela since 2013.
- Aakash (Android application development), as Coordinator for NIT Rourkela since 2013.
- As a Co-PI for study of slope stability-Ardhagram Mine, OCL, 2018 - 2019.

8.   WORKSHOPS / SHORT TERM COURSES/ FDP CONDUCTED

Sl No.	Title	Year
1.	**National workshop on Software Engineering Applications in Computer Networks (SEA-CN' 2011)**	**Dec. 2011**
2.	**Short Term Course on Basics and Advances in wireless networks**	**May 2013**
3.	**Faculty Development Program on Computer Networks in collaboration with IIT Bombay (under T10KT)**	**July 2014**
4.	**National workshop on Technology Enabled Learning (TECHEL-2015)**	**Aug. 2015**
5.	**TEQIP sponsored National Workshop on Wireless Sensor Networks for Rehabilitation of Orthopaedic Patients (WiSNet-rehab)**	**Oct. 2016**
6.	**Faculty Development Program on MOOCs: Design, Creation and Dissemination for Outcome Based Education.**	**Mar. 2017**
7.	**Short term course on Wireless Networks Technologies (WNT-2019)**	**Dec. 2019**

9. PUBLICATIONS
Books:

Asis Kumar Tripathy, Mahasweta sarkar, Jyoti Prakash Sahoo, Kuan Ching Li, Suchismita Chinara, " in Advances in distributed computing and Machine learning, Springer, 2020

Book Chapters:

1. Asis Kumar Tripathy and Suchismita Chinara "Evolution of Virtual Clustering in Wireless Sensor Networks" in Wireless Sensor Networks: From Theory to Applications (Print ISBN 9781466518100 and E-Book ISBN 9781466518117)", CRC Press, Taylor & Francis Group, USA, Aug 2013.
2. Suchismita Chinara, Ruchira Naskar, Jamimamul Bakas, and Soumya Mishra, "Illegitimate EPR Modification: A major threat in IoT based healthcare system and its remedy through blind forensic measures", in IoT: Security and Privacy Paradigm (Print ISBN: 9780367253844), CRC Press, Taylor&Francis Group, Jun 2020.
3. Suchismita Chinara, Ranjit Kumar, Soumya Nandan Mishra," IoT: Foundations and Applications", in IoT: Security and Privacy Paradigm (Print ISBN: 9780367253844), CRC Press, Taylor & Francis Group, Jun 2020.
4. Amrit Sahani, Ranjit Kumar, and Suchismita Chinara, " Data management for IoT applications" in Internet of Things: Concepts and Applications of series: SMART Environments, ISBN: 978-3-030-37467-9, 2020.
5. Suchismita Chinara & Venkata phanikrishna B, "Analysis of EEG signal for drowsy detection: A machine learning approach", in Soft Computing in Interdisciplinary Sciences, Springer, 2021.

Journals:

1. Suchismita Chinara and Santanu Kumar Rath, A survey on one-hop clustering algorithms in mobile ad hoc networks, **International Journal on Networks System Management, Springer, pp. 183-207, May 2009**.
2. Suchismita Chinara and Santanu Kumar Rath, "Topology Control by Transmission Range Adjustment Protocol for Clustered Mobile Ad Hoc Networks" **ISRN Communications and Networking, Hindawi, Volume 2011 (2011), Article ID 147925, doi:10.5402/2011/147925, 2011**.
3. Asis Tripathy and Suchismita Chinara, Comparison of Residual Energy based Clustering Algorithms for Wireless Sensor Networks**, ISRN Sensor Networks, Volume 2012 (2012**), Article ID 375026, http://dx.doi.org/10.5402/2012/375026.
4. Asis Kumar Tripathy and Suchismita Chinara, Distributed Dynamic Clustering Protocol for Wireless Sensor Networks, **International journal of Computer Applications in Technology, Inderscience Press, volume 51, issue 2, pp. 112-119, April 2015**.
5. Ganit Kumar and Suchismita Chinara, Development of Energy efficient Wireless Sensor Networks Protocol for Precision Agriculture, Journal of Basic and Applied Engineering Research (JBAER), Volume 2, Issue 5, pp. 360-364, 2015
6. Asis Kumar Tripathy, Suchismita Chinara and Mahasweta Sarkar, An Application of Wireless Brain-Computer Interface for Drowsiness Detection, **International Journal of Bio cybernetics and Biomedical Engineering, Elsevier, Vol. 36, Issue 1, pp. 276-284, 2015**.
7. Sandipan Basu, Mahasweta Sarkar, Santosh Nagaraj, and Suchismita Chinara, A survey on ultra-wideband and ultrasonic communication for body area network, **International journal of Ultra-wideband communications and systems, Inderscience, Vol 3, issue 3, pp. 143-154, 2016**.
8. Manu Elappila, Suchismita Chinara, Dayal Ramakrushna Parhi,"Survivable Path Routing in WSN for IoT applications". **Journal of pervasive and mobile computing, Elsevier, pp. 49-63, 2018**.
9. Elappila, Manu, Soumya Nandan Mishra, and Suchismita Chinara. "RPL Adaptation with Survivable Path Routing for IoT Applications." *INFOCOMP Journal of Computer Science* 18, no. 1 (2019): 26-31
10. Devendra Kumar Yadav, Singam Jayanthu, Santos Kumar Das, Suchismita Chinara, Pragyan Mishra, Critical review on slope monitoring systems with a vision of unifying WSN and IoT, **IET Wireless Sensor Systems, vol. 9, Issue 4, PP. 167-180, 2019**.

11. Manu Ellapila, Suchismita Chinara, and Dayal R K Parhi, "Survivability aware channel allocation in WSN for IoT Applications", **Journal of pervasive and mobile computing, Elsevier, volume 61, January 2020**. https://doi.org/10.1016/j.pmcj.2019.101107.

12. Venkata Phanikrishna B, Suchismita Chinara, Automatic classification methods for detecting drowsiness using wavelet packet transform extracted time-domain features from single channel EEG signal, **Journal of Neuroscience Methods, Elsevier, Vol. 347, 2021**. https://doi.org/10.1016/j.jneumeth.2020.108927.

13. Venkat Phanikrishna B, Venkata Uday Sameer, and Suchismita Chinara, Automated classification system for drowsiness detection using convolutional neural network and electroencephalogram, *IET Intelligent Transport Systems,* **IET WILEY, 2021**. https://doi.org/10.1049/itr2.12041.

14. Venkat Phanikrishna B, Allam Jaya Prakash, and Suchismita Chinara, Deep Review of Machine Learning Techniques on Detection of Drowsiness using EEG Signal, **IETE Journal of Research, Taylor and Francis, 2021** https://doi.org/10.1080/03772063.2021.1913070.

15. Venkat Phanikrishna B and Suchismita Chinara, Development of single-channel Electroencephalography signal analysis model for real-time drowsiness detection. **Physical and Engineering Sciences in Medicine, Scientific paper, Springer, 2021**. https://doi.org/10.1007/s13246-021-01020-3.

16. Venkat Phanikrishna B and Suchismita Chinara, Statistical Channel Selection Method for Detecting Drowsiness Through Single-Channel EEG-Based BCI System, **IEEE Transactions on Instrumentation and Measurement, Vol 70, 2021.**

Conferences:

1. Suchismita Chinara and Santanu Kumar Rath, " Energy Efficient Intra Cluster Hand-off Algorithm for Mobile Ad Hoc Networks", Proceedings of International Conference on Information Systems and Technology (ICIST '07), Kerala, Dec 14th -15th , pp. 23-27, 2007.

2. Suchismita Chinara and Santanu Kumar Rath, " Mobility Based Clustering Algorithm and the Energy Consumption Model of Dynamic nodes in Mobile Ad Hoc Networks", Proceedings of IEEE International Conference on Information Technology (ICIT'08), Bhubaneswar ,Dec 17th -20th , 2008.

3. Suchismita Chinara and Santanu Kumar Rath, "Energy Efficient Mobility Adaptive Distributeed Clustering Algorithm for Mobile Ad Hoc Networks", Proceedings of IEEE Internaional Conference ADCOM 2008, Dec 14th-16th, Chennai, pp. 265-272, 2008.

4. Suchismita Chinara and Santanu Kumar Rath, "Taca: A Topology Adaptive Clustering Algorithm for Mobile Ad Hoc Networks", Proceedings of WORLDCOMP International Conference on Wireless Networks (ICWN '09), July 14th-17th, Las Vegas, USA, pp. 391-397, 2009.

5. Suchismita Chinara and Santanu Kumar Rath, " Modeling of a Topology Adaptive Clustering Algorithm for Mobile Ad Hoc Networks using Coloured Petri Nets", Proceedings of WASET International Conference on Software and Computer Engineering (ICSCE '10), August 25th- 27th, Singapore, pp. 1191-1199, 2010.

6. Suchismita Chinara and Santanu Kumar Rath," CPN Validation of Neighbor Detection Protocol for Ad Hoc Networks", Proceedings of 8th International Conference on Information, Communication and Signal Processing (ICICS'11), 13th -16th Dec. , Singapore, 2011.

7. Amit Kumar, Dhreendra Srivastava and Suchismita Chinara," Simulator for Energy Efficient Clustering in Mobile Ad hoc Networks", AIRCC international conference CCSEA-12, 26th -27th May, New Delhi, 2012.

8. Supriya Agrahari and Suchismita Chinara," Simulation of Random Mobility Model using Coloured Petri Nets", ICCTS2012, 18th -19th Aug., New Delhi, 2012.

9. Asis kumar Tripathy and Suchismita Chinara, "Staggered Clustering Protocol: SCP an Efficient Clustering Protocol for Wireless Sensor Networks", WICT 2012, 30th Oct. to 2nd Nov., Trivandrum, pp. 938- 942, 2012.

10. Utkarsh, Mukesh Mishra and Suchismita Chinara, "ESAR: An Energy Saving Ad Hoc Routing Algorithm for MANET", IEEE- Fourth International Conference on Advanced Computing, ICoAC 2012, MIT, Anna University, Chennai. December 13-15, 2012.

11. Asis Kumar Tripathy and Suchismita Chinara, "Authenticated Data Transmission Technique for Clustered Wireless Sensor Network, IEEE International conference ICIIS-2014, Gwalior, Dec.15th - 17th, 2014.

12. Madhusudan tinker and Suchismita Chinara, "Energy Conservation Clustering in Wireless Sensor Networks for Increased Life Time", IEEE International Conference on Advances in Computation and Communication Engineering, ICACCE-15, Dehradun, 1st-2nd May, 2015.

13. Monika Lakra, Vinod K, S Chinara, "Design of smart and intelligent power saving system for Indian Universities", International conference on information and communication technology for intelligent systems", (ICTIS 2015), Ahmedabad, 2015.

14. Rohit Sahoo, Ashutosh Dwibedi, and Suchismita chinara, "Blended evaluation: A paradigm change in higher education by the use of ICT", international conference on innovative research in computer science, e-learning, information and communication technology", (CSIT-2016), pp. 178-181, New Delhi, 2016.

15. Anurag Patra, Suchismita Chinara, and Manu Ellapila, "A Dynamic Contention MAC Protocol for Wireless Sensor Networks´, International Conference on High Performance control, Communication, and Computing, Mar 22nd- 24th, Kuala lumpur, Malayasia, 2017.

16. Nandanwar Chethan Damodar, Manu Elappila, Anurag Patro, Suchismita Chinara. ENL-AODV: Energy and Load Based Routing Protocol in Ad-Hoc Networks. International Conference on Optical & Wireless Technologies (OWT2017), Springer; Jaipur, India, 2017.

17. Suchismita Sethy and Suchismita Chinara, "Modelling of AODV routing protocol using timed color petri Nets, IEEE international conference on computing for sustainable global development INDIACOM 2018, New Delhi, 2018.

18. Manu Ellapila and Suchismita Chinara,"Dynamic Survivable path routing for fast changing IoT network topologies", 17th IEEE International conference on Trust, Security and privacy in computing and communication (TrustCom 2018), August, New York, USA, 2018.

19. Manu Elappila, Suchismita Chinara, Deepaknath Tandur, Anitha Varghese, Dayal Ramakrushna Parhi, Fuzzy based MAC Adaptation in Industrial IoT based Sensor Network, International Conference on Advances in Computing, Communications and Informatics (ICACCI), September, Bangalore, India, 2018.

20. Venkata Phanikrishna B, Suchismita Chinara, Mahasweta Sarkar, "Drowsiness detection by analysis of EEG signal with the help of Machine Learning",24th annual International Conference on Advanced Computing and Communications (ADCOM 2018), 2018.

21. Soumya Nandan Mishra and Suchismita Chinara, "Development of Survival Path Routing Protocol for Scalable Wireless Sensor Networks", International Conference on Information technology (ICIT), 2018.

22. Soumya Nandan Mishraa and Suchismita Chinara, "CA-RPL: A clustered additive approach in RPL for IoT based scalable Networks, EAI International Conference on Ubiquitous Communications and Networks Computing 2019, 8th-10th Feb, 2019. https://link.springer.com/conference/ubicnet 2019.

23. Soumya Nandan Mishra, Manu Elappila and Suchismita Chinara, 2020. EHA-RPL: A Composite Routing Technique in IoT Application Networks. In *International Conference on Sustainable Technologies for Computational Intelligence* , ICTSCI 2019,(pp. 645-657). Springer, March 2019.

24. Anchal chaurasia, Soumya Mishra, and Suchismita Chinara, Performance evaluation of Software Defined Wireless Networks in IT-SDN and Mininet-Wifi, International conference on Advances in Information Technology (ICAIT 2019), July 2019.

25. Ranjit Kumar, Suchismita Chinara, and Soumya Mishra, CBUC: A connectivity based unequal clustering protocol for scalable wireless sensor networks, ICSTEM- 2019, Dec. 2019, Bali, Indonesia.

26. Venkat Phanikrishna, Suchismita Chinara, Time domain parameters as a feature for single-channel EEG-based drowsiness detection method, IEEE International conference on Electrical, Electronics and Computer Science (SCEECS 2020), MANIT Bhopal, Feb, 2020.

27. Amrit Sahani, Ranjit Kumar, Anjali Kumari, and Suchismita Chinara, Identifying maximal cliques on large scale network using the genetic algorithm, International Conference on Innovative Computing and Communication (ICICC-2020), New Delhi, Mar 2020.

28. Prabin Rath, Neelam Mohapatra, Subham Sahoo, and Suchismita Chinara, "

(SUCHISMITA CHINARA)