17 February 2025

CURRICULUM VITA
OF
PABITRA MOHAN KHILAR

PROFESSOR
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National Institute of Technology, Rourkela – 769008,
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PERSONAL:
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EDUCATION

DEGREE	THESIS TITLE	YEAR	UNIVERSITY
Ph.D. (Distributed Network Fault Diagnosis), Course Work: CGPA = 8.57	**Algorithms for Fault Diagnosis in Wireless Adhoc Networks and Distributed Embedded Systems**	**2009**	**IIT KHARAGPUR**
M.Tech (Comp. Sc. & Engg.), CGPA = 8.3, Class Rank: 1/20	**Algorithms for Distributed System Level Diagnosis**	**1999**	**NIT ROURKELA**
B.Tech (Comp. Sc. & Engg.), (First Class with Distinction), CGPA = 8.0, Class Rank: 2/60	**Library Information System**	**1990**	**MYSORE**

RESEARCH INTEREST

- Vehicular Adhoc Networks, Wireless Sensor Networks & Distributed Embedded Systems
- High Performance Computing, Parallel and Distributed Computing, Cluster and Grid Computing,
- Distributed Fault Tolerance, Dependable Computing,

BRIEF BIOGRAPHY:

Dr. Pabitra Mohan Khilar is currently working as Professor in the Department of Computer Science & Engg., at National Institute of Technology, Rourkela. He is the professor in-charge of the Wireless Sensor Network Laboratory, Hardware Laboratory, and Data Communication Laboratory at NIT, Rourkela. He has been involved with teaching undergraduate/graduates and research in Distributed Diagnosis, Distributed Fault Tolerance, High-Performance Algorithms, Data Structures, Sensor Fusion, since his joining as a faculty in the Department of Computer Science & Engineering, NIT, Rourkela, India in the year 1999. Prior to his joining at NIT, Rourkela, he had been involved with undergraduate/postgraduate teaching and research in many reputed universities of India. Before his joining to teaching and research profession, he had been involved for developing system/application software and design of hardware equipments in reputed industries of India. He is senior life members of many international and national professional bodies including IEEE, IETE, CSI, IE (I), ISTE, ISCA, OITS and OBA.

He has guided 15 Ph.D students, 2 M.Tech (R) (CSE) students, around 90 M. Tech (CSE), over 100 MCA students and around 200 B.Tech (CSE) students in computer science and engineering, many of whom are faculty at reputed institutions/universities in nationwide or Scientists or Engineers at National Labs/Industries around the world. He is directing more than 10 Ph.D students, 5 M.Tech students and 5 B.Tech students in the emerging research fields such as Fault Tolerant Computing, Parallel and Distributed Systems and Distributed Wireless Networks. He has published more than 200 research papers in various highly reputed International SCI/SCOPUS/WEB of Science Journals published by IEEE, Elsevier Science, Springer, Inderscience, Willy, IJCA, IASTD and so on, and International Conferences many of which are cited in proceedings of international journals and conferences, and Ph.D thesises of reputed international universities. He is the author of books and book chapters in computer science and engineering which are published by reputed international publishers such as Tata McGrahill, India, Springer and IGI Global Services. He has received Gold Medal from IE (I), IBM faculty award-2011, Certificate of Recognition from Infosys Ltd, IET Premium Awards 2016, Amdocs Innovative Mentor Awards 2018 and many awards received from various International conferences and workshops for his technical contributions. He has conducted more than ten faculty development programs/short term courses where the participants are from both India and foreign universities. He has been honored for many invited talks, keynote/chief guest speech and All-India Radio speech by the organizing committee for many international and national conferences/workshops/seminars conducted by reputed institutions and universities in India. He has been assigned as reviewer, session chair, organizing chair, technical committee member, international advisory board for many international journals and conferences in India and foreign countries. He has been the examiner for the thesis evaluation of B.Tech (CSE & IT), M.Tech (CSE & IT) and PhD thesis of reputed institutions and universities in India including, BPUT, ANNA University, SATYABAMA, SRI SRI VENKATESWAR UNIVERSITY, JNTU, KIITS, SOA etc.. He has visited the foreign universities such as MIT, Boston, USA, NTU, Singapore, Penang, Malyasia and Tribhuban Engineering College, Kathamandu, Nepal.

He was the honorary secretary of IE(I), Rourkela local chapter since August 2011 till November 18th 2012. He is the executive member in management committee of CSI local chapter at Rourkela Steel Plant, Rourkela for the session 2012-2013. He is the faculty advisor for SPIC MACAY from 2011 to 2013, Nodal Officer (Ek-Bharat Shrestha Bharat, Department of Higher Education, GOI, Prof-in-charge of NSS activities from 2008 to 2017, Vice President of Film and Music Society during October 2010 to December 2013, Core Committee Member for ISM 2012 and ISM 2013.

He has been as Joint Secretary for the years 2009 and 2010, Secretary for the years 2011, 2012 and 2013 and Vice-president for the years 2014, 2015, 2016 and 2017 in the SRI SRI SARBAJANINA DURGA PUJJA committee, NIT CAMPUS, Rourkela.

Countries Visited

United States of America (MIT CAMPUS, BOSTON), Singapore (NTU), Malaysia (KULALMPUR & PENANG) & Nepal

R & D/CONSULTANCY PROJECTS

ON GOING

- **Development of Intelligent Drone Systems for Agricultural Environment from TEQIP=II sponsored seed grant.**
- **Designing of Mining Method, Strata Monitoring, from SECL, Chhattisgarh during 2016 to continue**

COMPLETED

- **Slicing of Aspect Oriented and Web-Based Applications**, from Dept. of Science & Technology, Govt. of India during **2012 to 2016**.

- **Main Phase of Developing Suitable Pedagogical Methods for Various Classes, Intellectual Calibers, and Research in E-Learning (for Computer Architecture Course)", from MHRD**, New Delhi during **2012-2016 .**

- **Industrial Live Project on Corporate Portal Management System For IBM**, from IE (I), Kolkata during **2011-2012**.

- **Pilot Phase of Developing Suitable Pedagogical Methods for Various Classes, Intellectual Calibers, and Research in e-learning: For Computer Architecture Subject**, from MHRD, New Delhi during **2009 to 2012**.

DETAILS OF EXPERIENCE

- **Professor (Level 14A)** in the department of CSE, NIT Rourkela for 2 years since **29-03-2023 till date**.

- **Associate Professor (Level 13, A2)** in the department of CSE, NIT Rourkela for more than **2 and half years since 02-02-2018 to 28-03-2023.**

- **Assistant Professor (Level 12)** in the department of CSE, NIT Rourkela for **2 years and one month from 01-01-2016 to 01-02-2018**

- **Assistant Professor** (**8000 AGP)** in the department of CSE, NIT, Rourkela for around **4 years and 4 months from 01-07-2011 to 31-12-2015**.

- **Assistant Professor (7000 AGP)** in the department of CSE, NIT, Rourkela for **5 and half years** from **01-01-2006 to 31-06-2011.**

- **Lecturer (8000-275-13500)** in the department of CSE, NIT, Rourkela more than **6 years** from **2-11-99 to 31-12-2005.**

- **Assistant Professor** (12000-375-18000) in the department of Comp. Sc. and Engg. at Institute of Technical Education and Research (SOA University), Bhubaneswar about 1 **year** from **18-01-99 to 28-10-99.**

- **Lecturer** (2200-75-4000) in the department of Comp. Sc. and Engg. at Orissa Engineering College, (BPUT University), Bhubaneswar for **6 years** from **26-10-92 to 16-01-99**.

- **System Engineer** at Eastern Informatics (P) Ltd, Satyanagar, Bhubaneswar for **2 years** from **16-10-90 to 21-10-92.**

EDITOR-IN-CHIEF/EDITORIAL BOARD MEMBER/SESSION CHAIR/EDITOR/ MEMBER IN THE ORGANISING COMMITTEE/REVIEWER OF INTERNATIONAL/ NATIONAL JOURNALS/CONFERENCES/ WORKSHOPS/PHD THESIS /SYMPOSIUM

- **JOURNALS**

Sl. No	Name of Journal	Publisher	Position	Remarks
1	International Journal of Parallel and Distributed Computing	Elsevier Science	Reviewer	
2	International Journal of Systems Architecture	Elsevier Science	Reviewer	
3	International Journal of Computer Communications	Elsevier Science	Reviewer	
4	International Journal of Networks and Computer Applications,	Elsevier Science	Reviewer	
5	International Journal of Signal and Imaging Systems Engineering	Inder Science	Reviewer	
6	International Journal of Computing Science & Information Technology	DBLB	Editor-in-Chief	
7	International Journal on Soft Computing, Artificial Intelligence and Applications	AIRCC	Editorial Board Member	
8	International Journal on Web Service Computing (IJWSC),	AIRCC	Editorial Board Member.	
9	The International Journal of Ambient Systems and Applications	AIRCC	Editorial Board Member	
10	International Journal of Computer Applications	DBLB	Editorial Board Member	
11	International Journal of Adhoc Networks	Elsevier Science	Reviewer	**Outstanding Reviewer Award**
12	International Journal of Vehicular Communications	Elsevier	Reviewer	
13	IEEE TRANSACTIONs on Industrial Informatics	IEEE	Reviewer	
14	International Journal of Engineering,	Hindawi	Reviewer	
15	International Journal of Sensors	Hindawi	Reviewer	

- **CONFERENCES**

Sl. No	Name of Conferences	Publisher	Position	Duration/Place
1	Indicon-2013	**IEEE**	**Reviewer**	IIT, Bombay
2	International conference on		**Reviewer**	13-16 Dec 2011,

	Information,Communication and Signal Processing			Shanghvi-La Hotel, Singapore
3	International Conference on Intelligent Computing,		**Reviewer**	September 15-18, 2008 Singhai, China.
4	International Conference on Advances in Computer, Communications Technology & Applications		**Member/Reviewer**	(ACCTA -2010), 03-05 Aug, 2010, C.V.Raman College of Engineering, Bhubaneswar, India
5	International conference on Electronic Systems,	**IEEE**	**Reviewer**	07-09, Jan, 2010 at NIT, Rourkela, India
6	IEEE Region 10 Colloquium and Third International Conference on Industrial and Information Systems (ICIIS-2008),	**IEEE**	**Reviewer**	8-10 December 2008 IIT, Kharagpur, India**).**
7	National conference on secured adhoc network (NSAN-2009),		**Reviewer**	during 10th and 11th October 2009 Dept. of CSE, CEB, BBSR
8	International Conference on Computing, Communication and Sensor Network		**Editor-in-Chief**	during 29-30th t October, 2011, at PIET, Rourkela
9	International Conference on Emerging Trends in Computer, Communication & Nano Technology,		**Member in the National Advisory Board**	25th to 26th March 2013, Tamil Nadu, India
10	Second International Conference on Communication, Computing and Security (ICCCS'11),		**Core Committee Member Reviewer & Session Chair**	08-10, October 2012 Dept. of CSE,NIT, Rourkela, India,
11	9th International Conference on Distributed Computing and Internet Technology,		**Session Chair**	during 5th to 8th Feb. 2013. KIIT University, Bhubaneswar, India
12	2011 International Conference on Software and Computer Technology, (ICSCT – 2011)	**(ISI Thomson).**	**Session Chair**	9-10, Dec 2011, Singapore
13	National conference on Data Mining		**Session Chair**	3-4 Sept. 2011 OEC, Bhubaneswar
14	International conference on Industrial Applications of Soft Computing,		**Session Chair**	20-22 August 2011, Hotel Swasti Premier, Bhubaneswar, India
15	First International Conference on Communication, Computing and Security (ICCCS'11)		**Member/Session Chair**	12-14, February 2011 Dept. of CSE, NIT, Rourkela, India,
16	Program Committee		**Symposium**	Dec 2011, KIIT,

	member for Student Symposium in ICDCIT-2011,		**Chair**	Bhubaneswar
17	AICTE Sponsored Workshop on Computing and Communication, CEB, BBSR		**Resource Person**	November, CEB, BBSR
18	ICDCIT-2018, KIIT, BHUBANESWAR	**Springer**	**Session Chair**	Jan 2018, KIIT, BHUBANESWAR
19	ICRIEECE	**IEEE**	**Session Chair**	27-28 July 2018, KIIT, BHUBANESWAR
20	SCI - 2018	**Springer**	**Session Chair**	21-22 Dec 2018, KIIT, BHUBANESWAR
21	ICDCIT-2019, KIIT BHUBANESWAR	**Springer**	**Session Chair**	10-13 Jan 2018, KIIT, BHUBANESWAR
22	MIND 2019, NIT Kurukshetra	**Springer**	**Session Chair**	2-4 March 2019, NIT, KURUKSHETRA
23	ICESIP-2019, IIITDM, Kancheepuram	**IEEE**	**Session Chair**	4-6th July 2019, IIITDM, Kancheepuram
24	ICCAN- 2019	**Springer**	**Session Chair**	Dec – 2019 KIIT Bhubaneswar
25	16th ICDCIT - 2020	**Springer**	**Session Chair**	9-12 Jan 2020 KIIT Bhubaneswar
26	EAETRE - 2020		**Session Chair**	5-6 March 2020 KIIT Bhubanewswar

FACULTY/EXECUTIVES WORKSHOPS/SHORT TERM COURSES/SEMINARS ORGANIZED

Sl. No	**Title**	**Duration**		**Place**	**Positions**
		From	**To**		
1	TE-QIP Sponsored Short Term Course on “Network Simulator 2 “	14/10/2016	15/10/2016	BITs Ranchi	Resource Person
2	TE-QIP Sponsored Short Term Course on “Improving Programming Skills in Python”	13/07/2013	17/07/2013	NIT, Rourkela	Co-ordinator
3	All India Seminar on Recent Trends in Industrial Hydraulics and Lubrication Practice	2/11/2012	3/11/2012	RSP Rourkela, India	Organizing Secretary
4	India Immersion	21-09-2012	30/09/2012	NIT, RKL	Co-

	Programme for students and faculties of NGEE ANN Polytechnic, Singapore (Cloud Computing and Data Center Management)		.		coordinator
5	All India Seminar on the topic “Appropriate Climate-Responsive Technologies for Inclusive Growth and Sustainable Development” on the occasion of 151st Birth Anniversary of Sir. M.Viswesaray	15/09/2012	15/09/2012	Gopabandhu Auditorium, RSP, Rourkela	Convenor
6	2012 Seminar on Advances of Sensors in Medical Science and Engineering,	25/08/2012	25/08/2012	IE(I) Local Center, NIT Campus, Rourkela	Organizing Secretary
7	5th 2012 National Workshop on Recent Trends in Object-Oriented Software Testing (R-TOOST-2012)	9 June 2012	11th June 2012	NIT, RKL	Co-Convener
8	2012 DST Sponsored SERC School on Advanced Software Engineering Techniques and Their Applications,	4th June 2012	8th June 2012	Dept. of CSE, NIT, Rourkela	Co-cordinator
9	2011 National Workshop on Software Engineering Applications for Computer Networks (SEA-CN’11),	8 Dec 2011,	10 Dec 2011,	Dept. of CSE, NIT, Rourkela	Convener
10	All India Seminar on the topic “Disaster Mitigation 150th Birth Anniversary of Sir. M.Viswesaray	15th September 2011	15th September 2011	Gopabandhu Auditorium, RSP, Rourkela	Convenor
11	Workshop on Embedded Technology and DSP	09-02-2011	09-02-2011	Dept. of CSE, NIT, Rourkela	Co-ordinator
12	All India Seminar on	30 October,	31 October,	IE(I) Local	Convenor

	Computing, Communication and Sensor Networks,	2010	2010	Center, NIT Campus, Rourkela	
13	India Immersion Programme for students and faculties of NGEE ANN Polytechnic, Singapore IT Outsourcing and data Center Management	15-09-2010	11-10-2010	NIT, RKL	Co-cordinator
14	Workshop on “Software Testing”	12th April 2010	14th April 2010	NIT, RKL	Co-ordinator
15	Faculty Development Programme on “Real Time Systems”	5th April 2010	11th April 2010	NIT, RKL	Co-ordinator
16	Faculty development Programme on “Discrete Mathematics and Its Applications to Computer Science”	7th Dec 2009	20th Dec 2009	NIT, RKL	Co-ordinator
17	Faculty Development Programme on “System Software”	24th Oct. 2009.	25th Oct. 2009.	GIET, Gunupur	Co-ordinator
18	Seminars for B.Tech and M.Tech students at IIT, Kharagpur	2004	2007	IIT, Kharagpur	Seminar-in-charge

MENTOR FOR MS (IT) STUDENTS/SUPERVISOR FOR SUMMER INTERSHIP/AMIE SEC-B PROJECT/CORDINATOR FOR LABORATORY FACILITIES FOR AMIE EXAM

- **Mentor for MS (IT) Student**

Sl. No.	**Name**	**Institute**	**Project Title**	**Duration**
1	Miss. Prachi Shukla	BITs PILANI	Fault Tolerant and Efficient Distributed Load Balancing Algorithms	August 2012 to August 2013

- **Supervisor for Summer-Internships**

Sl. No.	**Name**	**Institute**	**Project Title**	**Duration**
1	Saurabh	BIT, Durg,	Mobile Adhoc Networks	18th May 2009 to

	Dubey	Chhatisgarh		8th July 2009
2	Bhabani Gautam	NIT, Rourkela	Hierarchical State Routing	18th May 2009 to 8th July 2009
3	Chitra Thakur	NIT, Rourkela	Finding Shortest Paths and Analyzing Characteristics in MANETs	18th May 2009 to 8th July 2009
4	Jayant Kumar	SRM University, Chennai	Design and Implementation of Routing Protocols	21st May 2010 to 10th July 2010
5	Piyush Jha	GITA, Bhubaneswar	Modeling Computer Networks	21st May 2012 to 10th July 2012
6	Yogesh Kumar	CET, Bhubaneswar	Design of Protocols and Devices Using Wireless Sensor Networks	18th May 2017 to 30th June 2017
7	Amanpreet Kaur Kanvel	GIFT, Bhubaneswar	Digitization of Load Cells	15th May 2017 to 30th June 2017
8	Haripriya Kar	Radha Krishna Engg. College, Khurda	Smart Environment Monitoring System using Sensors	25th May 2018 to 30th June 2018
9	Debarshee Bardhan	Silicon Institute of Technology, Sambalpur	IOT Based Smart Environment Monitoring System using Arduino	18th May 2018 to 30th June 2018
10	Anmol Sa	GIET Gunupur	Statistical and Programming Features Using R	1st June 2018 to 30th June 2018
11	Anubhav Pattanaik	KIIT, Bhubaneswar	Road Accident Analysis Using Machine Learning Methods	15th May 2018 to 15th July 2018
12	Monalisha Behera	Parala Maharaja Engineering College, Berhmpur	Application of Matlab	23rd May 2018 to 22nd June 2018
13	U.Hement Kumar	Sikkim Manipal Institute of Technology, Sikkim	Development of Air Pollution Monitoring System Using IoT Devices and Machine Learning Approach	14th Jan 2019 to 29th April 2019.
14	Anju Bhumij			
15	Adyasa Sahoo	SRM University, Chennai	Performance Analysis of State Exit Poll Prediction Using Artificial Neural Networks	1st June 2019 to 30th June 2019
16	S.Sibani	Trident Computer Academy, Bhubaneswar	Fault Diagnosis using Finite Automata	1st June 2019 to 30th June 2019

- **Supervisor for Final Project (AMIE, SEC B)**

Sl. No.	Name	Project Title	Duration
1	G. Anuradha (Memb.No.ST 428407-6)	Courier Billing System using .NET	18-06-2009 to 05-08-2009
2	Meena Maharana (Memb. No.ST482090-3)	Library Automation System using .NET	30-06-2010 to 05-08-2010
3	P. Chandra Sekhar (Memb No.ST414209-3)	Transport Management System for PXE Lab, DRDO, Chandipur	10-12-2011 to 07-02-2012
4	Sangam Kumar Dehury Memb. No. T 021602	E-Governance for Corporate Management of Group of Industries	27-11-2012 to 17-02-2013
5	Heena Fatima Memb. No. ST649096-5	Resource Allocation in Cloud Computing	Jan 2017 to March 2017
6	Aswini Kumar Naik ST/288991/4	Study of Integrated Refractory Information System, RSP	Dec 2017 to Feb 2018

- **Laboratory Co-ordinator (AMIE -2012)**

Sl. No.	Name	Branch	Duration
1	Aswini Kumar Naik	Computer Sc. & Engg.	20-12-2011 to 10-01-2012
2	Mitali Madhusmita	Computer Sc. & Engg.	20-12-2011 to 10-01-2012

PHD THESIS EVALUATED

Thesis Title	University	Month/Year
An Efficient Fault Tolerant Hypercubic P2P Grid Resource Management System	ANNA UNIVERSITY, CHENNAI	Sept 2011
Performance Analysis of Face Recognition Based on Spatial and Transform Domain Techniques	JNTU, HYDERABAD	Feb 2012
An Improved Job Scheduling Algorithm for the Computational Grid Environment	ANNA UNIVERSITY, CHENNAI	May 2013

COURSES TAUGHT AT UG/PG LEVEL

Theory	
B.TECH Adhoc and Wireless Networks Advanced Computer Architecture Distributed Operating Systems Distributed Systems Computer Organization and Architecture Microprocessors & Microcontrollers Systems Software Computer Graphics Computer Networks Data Communications & Computer Networks Theory of Computation Discrete Mathematics Data Structures & Algorithms	**M.TECH** Advanced Computer Architecture Advanced Microprocessor System Distributed Operating System Advanced Operating Systems Computer Networks Parallel and Distributed Systems Cluster and Grid Computing
Laboratory/Seminar & Technical Writing	
B.TECH Data Communication Laboratory VHDL Laboratory Microprocessor Laboratory System Programming Laboratory Computing Laboratory Wireless Sensor Networks Laboratory Network Simulation Laboratory Using NS2 Research Project	**M.TECH** Parallel and Distributed Computing Laboratory Seminar and Technical Writing Research Project Software Lab Using NS2

VIDEO LECTURES

- **Systems Software (Jan- June 2017)**
- **Data Structures and Algorithms (Jan-June 2017)**
- **Discrete Mathematics (Jan – June 2018)**
- **Microprocessor & Microcontrollers (July – Dec 2018)**
- **Distributed Systems (Jan- June 2020)**

LIST OF PUBLICATIONS

INTERNATIONAL JOURNALS (PUBLISHED) (100)

2021-2025 (18)

- ***P Tripathy, PM Khilar, (2025) Weighted Centroid Amorphous Algorithm for Position Error Minimization in WSN, Concurrency and Computation: Practice and Experience 37 (1), e8308 doi.org/10.1002/cpe.8308 (SCI)***

- ***S Nayak, PM Khilar, (2025) A ClusteredRF Approach to Data Imputation in Healthcare for Enhanced Data Integrity Network Modeling Analysis in Health Informatics and Bioinformatics 14 (1), 5. doi.org/10.1007/s13721-024-00496-9 (ESCI)***

- ***Yadav, N., Khilar, P. M., Sharma, S. (2024), 'An ameliorated localization algorithm for compensating stratification effect based on improved underwater salp swarm optimization technique', International Journal of Communication Systems, Wiley, 37(11), pp. e5786. DOI:10.1002/dac.5786.(SCI)***

- ***Yadav, N., Khilar, P. M., Sharma, S. (2024), 'RLCS-IUGWOM: Revamped Localization Algorithm for Compensating Stratification Effect based on Improved Underwater Grey Wolf Optimization Method in 3D-UASN', Transactions on Emerging Telecommunications Technologies,Wiley, (SCI) (Accepted)***

- ***B Ranjan Senapati, S Swain, R Ranjan Swain, P Mohan Khilar "A heterogeneous fault diagnosis approach to enhance performance of connected vehicles" International Journal of Communication Systems 36 (4), e5414, 2023 https://doi.org/10.1002/dac.5414 (SCI)***

- ***Biswa Ranjan Senapati, Pabitra Mohan Khilar, Tirtharaj Dash, Rakesh Ranjan Swain "AI-assisted emergency healthcare using vehicular network and support vector machine", Injternatuional Journal of Wireless Personal Communications, Volume 130, pages 1929–1962, (2023), https.//doi.org/10.1007/s11277-023-10366-8 (SCI)***
- ***Sipra Swain a, Pabitra Mohan Khilar Biswa Ranjan Senapati, "A reinforcement learning-based cluster routing scheme with dynamic path planning for mutli-UAV network", International Journal of Vehicular Communications 41 (2023) 100605 https://doi.org/10.1016/j.vehcom.2023.100605, (SCI)***

- ***Nishi Yadav, Pabitra Mohan Khilar, "An efficient 3D localization algorithm for compensating stratification effect in underwater acoustic sensor network", Transactions on Emergfing Telecommunications Technologies, Vol. 34, Issue 7, July 2023, e4772 https://doi.org/10.1002/ett.4772 (SCI)***

- ***Sipra Swain, Pabitra Mohan Khilar & Biswa Ranjan Senapati, "An Efficient Path Planning Algorithm for 2D Ground Area Coverage Using Multi-UAV", Injternatuional Journal of Wireless Personal Communications, Volume 132, pages 361–407, August (2023), https://doi.org/10.1007/s11277-023-10614-x (SCI)***

- ***Nishi Yadav, Pabitra Mohan Khilar, UASN-3D: An energy efficient localization based on LEACH-BR algorithm (EELBL-BR), Transactions on Emergfing Telecommunications Technologies, Volume34, Issue12, December 2023, e4862 https://doi.org/10.1002/ett.4862 (SCI)***

- ***Biswa Ranjan Senapati, Rakesh Ranjan Swain, Pabitra Mohan Khilar, Sourav Kumar Bhoi, Kshira Sagar Sahoo, Automatic house location identification using location service based VANET, Interenational Journal of Communication System, e5947 Version of Record online: 05 August 2024, https://doi.org/10.1002/dac.5865, (SCI)***

- ***Sipra Swain, Pabitra Mohan Khilar, Biswa Ranjan Senapati, Rakesh Ranjan Swain, Comprehensive fault diagnosis in UAV-assisted sensor networks: "A three-phase automated approach, Computer Communications, Volume 219, April 2024, Pages 76-91, https://doi.org/10.1016/j.comcom.2024.03.002, (SCI)***

- ***Suraj Sharma, Nishi Yadav, Pabitra Mohan Khilar, "An ameliorated localization algorithm for compensating stratification effect based on improved underwater salp swarm optimization technique", International Journal of Communication Systems, Vol. 37, Issue 8, 1-15, April 2024,***
- ***https://doi.org/10.1002/dac.5786 (SCI)***

- ***Pujasuman Tripathy, P.M. Khilar, "PSO based Amorphous algorithm to reduce localization error in Wireless Sensor Network", Pervasive and Mobile Computing, Volume 100,, May 2024, 101890, https://doi.org/10.1016/j.pmcj.2024.101890, (SCI)***

- ***Pujasuman Tripathy, P.M. Khilar , Improvement of amorphous localization algorithm in WSN using ALO and GWO, Concurrency and Computation, Volume36, Issue11, May 2024, e8036, https://doi.org/10.1002/cpe.8036, (SCI)***

- ***Siyyadula Venkata Rama Vara Prasad, Pabitra Mohan Khilar, "SVM-SFL based malicious UAV detection in wireless sensor networks", , Concurrency and Computation, Volume36, Issue13, June 2024, e8049, https://doi.org/10.1002/cpe.8049, (SCI)***

- ***Biswa Ranjan Senapati, Sipra Swain, Rakesh Ranjan Swain, PabitraMohan Khilar. "A heterogeneous fault diagnosis approach to enhanceperformance of connected vehicles". International Journal of Communication Systems. vol.e5417, pp.Early Access Online,Dec 2022***

- ***Tisan Das, Rakesh Ranjan Swain, Pabitra Mohan Khilar, and Biswa Ranjan Senapati. "Deterministic linear-hexagonal path traversal scheme for localization in wireless sensor networks". Wireless Networks. vol.26,pp.5437-5453,2020. https://doi.org/10.1007/s11276-020-02404-1 Santoshinee Mohapatra, Pabitra Mohan Khilar. "Fault diagnosis in wireless sensor network using negative selection algorithm and support vector machine". Computational Intelligence. vol.36, no.3, pp.1374-1393,Aug 2020.***

- ***Jalumuru Nalini, PM Khilar. "Reinforced Ant Colony Optimization forFault Tolerant Task Allocation in Cloud Environments". WirelessPersonal Communications. vol.121, no.4, pp.2441-2459,Dec 2021.10.1007/s11277-021-08830-4***

2019-2020 (14)

- **S. Mohapatra, P. M. Khilar** Fault diagnosis in wireless sensor network using negative selection algorithm and support vector machine, Computational Intelligence 36 (3), 1374-1393

- **T Das, RR Swain, PM Khilar, BR Senapati,** Deterministic linear-hexagonal path traversal scheme for localization in wireless sensor networks, International Journal of Wireless Networks, 2020, 1-17

- **M K Gourisaria, A Samanta, A Saha, SS Patra, P M Khilar,**Extensive Review on Cloud Computing, Data Engineering and Communication Technology, 53-78, 2020

- **R R Swain, PM Khilar, SK Bhoi,** Underlying and persistence fault diagnosis in wireless sensor networks using majority neighbors co-ordination approach, Wireless Personal Communications 111 (2), 763-798, 2020

- **P M Khilar, T Dash,** Multifault diagnosis in WSN using a hybrid metaheuristic trained neural network, DIGITAL COMMUNICATIONS AND NETWORKS 6 (1), 86-100

- **T Das, PM Khilar, RR Swain**, Range-free intersecting chord-based geometric localization scheme for wireless sensor networks, International Journal of Communication Systems 33 (3), e4217

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- **Madhu Chauhan, M.N.Sahoo, and P.M.Khilar,** "Fault Diagnosis in MANET", In proc. of International Conference on ACC 2011, Kochi, Keral, India, 22-24 July 2011.pp.119-125 (**Springer**)

- **Jyostna Jaiswal and P.M.Khilar,** "Fault Tolerant Greedy Perimeter Stateless Routing in Wireless Network" In proc. of International Conference on Communication, Computing and Security (ICCCS'11), NIT, Rourkela, India, 12-14, February 2011, pp.92-95 (**ACM**)

- **Bibhudendu Panda and P.M.Khilar,** "FPGA Based Implementation of Parallel ECC Processor " In proc. of International Conference on Communication, Computing and Security (ICCCS'11), NIT, Rourkela, India, 12-14, February 2011. (**ACM**)

- **Arunashu Mahapatra and P.M.Khilar,** "On Distributed Self Fault Diagnosis for Wireless Multimedia Sensor Networks" In proc. of International Conference on Communication, Computing and Security (ICCCS'11), NIT, Rourkela, India, 12-14, February 2011. (**ACM**)

- **Arunashu Mahapatra and P.M.Khilar, "**Scalable Distributed Diagnosis Algorithm for Wireless Sensor Networks", in proc. of International Conference on Computing, Communication and Control (ICAC3'11), Mumbai, India, January 28-29, 2011, pages 400-405. (**Springer**)

- **Arunashu Mahapatra and P.M.Khilar,** "On-line Fault Diagnosis in Distributed Communication Networks", in proc. of International Conference on Electronic Systems (ICES 2011), NIT, Rourkela, India, 7th – 9th January, 2011. (**Inder Science Sponsored**)

2009-2010(16)

- **Swasti Punyotoya and P.M.Khilar,** "A Novel Fault Diagnosis Algorithm for K-Connected Distributed Clusters", in proc. of IEEE International Conference on Industrial

Electronics, Control and Robotics, (IECR-2010), NIT, Rourkela, India, 27-29th, December, 2010, pp.101-105. (**IEEE**)

- **Meenaskhi Panda and P.M.Khilar,** “Energy Efficient Search in Dense Wireless Sensor Networks”, in proc. of International Conference on Computational Intelligence and Communication Networks (CICN – 2010), Bhopal, India, November 26-28, 2010. (**IEEE)**

- **P.M.Khilar**, “Next Generation Wireless Sensor Networks” in the proc. of all India seminar on Computing, Communication and Sensor Networks, organized by IE (Rourkela chapter) and PIET, Rourkela, India, 30-31 October, 2010.

- **Meenaskhi Panda, P.M.Khilar, T.Panigrahi and G.Panda,** “Learning with Distributed Data in Wireless Sensor Networks”, In the proc. of First International Conference on Parallel, Distributed and Grid Computing, (PDGC-2010), Jaypee University of Information Technology, Waknaghat, Solan (H.P), India, October. 28-30, 2010, pp.241-245. (**IEEE**)

- **Neelam Banerjee and P.M.Khilar,** “Performance Analysis of Distributed Intermittent Fault Diagnosis in Wireless Sensor Networks”, in proc. of International Conference on Industrial and Information System – 2010 (ICIIS 2010), NITK, Surathkal, Karnatak, India during 29th July to 1st August 2010. **(IEEE)**

- **Nishi Jadav and P.M.Khilar,** “Hierarchically Adaptive Distributed Fault Diagnosis in Mobile Adhoc Networks using Clustering”, in proc. of International Conference on Industrial and Information System – 2010 (ICIIS 2010), NITK, Surathkal, Karnatak, India during 29th July to 1st August 2010. **(IEEE)**

- **K.Ganesh Reddy and P.M.Khilar,** “Routing Misbehaviour Detection and Reaction in MANETs”, in proc. of International Conference on Industrial and Information System – 2010 (ICIIS 2010), NITK, Surathkal, Karnatak, India during 29th July to 1st August 2010**.(IEEE)**

- **Neelam Banerjee and P.M.Khilar,** Distributed Intermittent Fault Diagnosis in Wireless Sensor Networks, In proc. of First IEEE International Conference on Integrated Intelligent Computing (ICIIC 2010), 05-07 Aug 2010, Kengeri, Bangalore, India,pp 264-269. (**IEEE**)

- **Nishi Yadav and P.M.Khilar,** Hierarchically Adaptive Distributed Fault Diagnosis in Mobile Ad hoc Networks, In proc. of First IEEE International Conference on Integrated Intelligent Computing (ICIIC 2010), 05-07 Aug 2010, Kengeri, Bangalore, India, pp.308-313. (**IEEE**)

- **Bibhudendu Panda and P.M.Khilar,** A Novel Secured ID Based ELGAMAL Signature Scheme and Message Encryption for SMART Card, In proc. of International Conference on Informatics, Cybernatics, and Computer Applications, (ICICCA2010), July 19-21, 2010, Bangalore, India, pp-345-351.

- **K.Gannesh Reddy and P.M.Khilar,** Malicious node routing misbehavior detection and reaction using challenged node techniques in MANET, In proc. of 2nd International Conference on Innovative Practices in Management and Information Technology for Excellence, SRIJAN '10, 8th May , MAIMT, 2010, Jagadhri, Haryana, India.

- **Sunnil Reddy and P.M.Khilar,** Link Chain Protocol for Wireless Sensor Networks, In proc. of 2nd International Conference on Innovative Practices in Management and Information Technology for Excellence, SRIJAN '10, 8th May, MAIMT, 2010, Jagadhri, Haryana, India.

- **Manmath Narayan Sahoo, P. M. Khilar and B.Majhi,** A Redundant Neighborhood Approach to Tolerate Access Point Failure in IEEE 802.11 WLAN, In proc. of Fourth IEEE International Conference on Industrial and Information Systems, 28-31 Dec 2009, Peradeniya, Srilanka, pp. 158-162. (**IEEE**)

- **P.M.Khilar and Swosti Punyotoya,** A Survey on System Level Diagnosis in Distributed Network, In proc. of 12th International Conference on Information Technology, ICIT 2009, Hotel Crown, Bhubaneswar, India, Dec. 21st -24th, 2009, pp.213-217. (**Tata Mc-Grahill)**

- **Swosti Punyotoya and P.M.Khilar,** Distributed Micro-controller-based Actuator Fault Diagnosis in Multi-rate Fly-by-wire System, In Proc. of 12th International Conference on Information Technology, ICIT 2009, Hotel Crown ,Bhubaneswar, India, Dec. 21st -24th 2009, pp. 17-22. (**Tata Mc-Grahill**)

- **Subhasis Dhal and P.M.Khilar,** ID-NIKD based Security of Temporary Key during Path Key Establishment in Key Pre-Distribution for WSN, In proc. of Fourth Innovative Conference on Embedded Systems, Mobile Communication and Computing, 27th – 29th July, 2009, Bangalore, India. 9-14 **(Best Paper Award) (MACMILLAN Advance Research Series)**

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- **P.M.Khilar, J.K.Singh. and S. Mahapatra**, "Design and Evaluation of a Failure Detection Algorithm for Large Scale Ad Hoc Networks Using Cluster Based Approach", In proc. of 11th IEEE International Conference on Information Technology, ICIT 2008, Xavier Institute of Management, Bhubaneswar, India, Dec. 18-20. 2008, 153-158 (**IEEE).**

- **P.M.Khilar and S.Mahapatra, "**A Dynamic Distributed Diagnosis Algorithm for an Arbitrary Network Topology With Unreliable Nodes and Links" ADCOM, 2007 18-21, December, 2007, IIT, Guwahati, India, pp.125-130 (**IEEE**).

- **P.M.Khilar and S.Mahapatra, "**Intermittent Fault Diagnosis in Wireless Sensor Network" In proc. of 10th International Conference on Information Technology, ICIT 2007 Dec 17-20, NIT, Rourkela, India, pp. 145-147 (**IEEE**).

- **P.M.Khilar and S.Mahapatra, "**A Distributed Diagnosis Approach to Fault Tolerant Multi-Rate Real-Time Embedded Systems" In proc. of 10th International Conference on

Information Technology, ICIT 2007 Dec 18-20, NIT, Rourkela, India, pp. 167-172. (**IEEE**).

- **P.M.Khilar and S. Mahapatra,** "A Fault Diagnosis Algorithm for Wireless Sensor Networks", In Proc. of the 19th IASTED International Conference on Parallel and Distributed Systems, Cambridge, Massachusetts, USA, Nov. 19-21, 2007, 443-447 (**OCTA PRESS**).

- **P.M.Khilar and S.Mahapatra,** "Heartbeat Based Fault Diagnosis for Mobile Adhoc Network," *In Proc. of IASTD Conference on Advances in Computer Science and Technology at Phuket, Thailand*, pp.194-199, April 2-4, 2007 (**OCTA PRESS**).

- **P.M.Khilar and S.Mahapatra, "**Two Phase Distributed Diagnosis in Dynamic Fault Environment" *In Proc. of International Conference on Advance Computing Madurai, Tamilnadu*, February 9-12, 2007, pp.120-124.

2005-2006(3)

- **P.M.Khilar and S.Mahapatra "**Design and Evaluation of a Distributed Diagnosis Algorithm in Dynamic Fault Environments for Not-Completely Connected Network", in proc. of 9th IEEE International Conference on Information Technology, ICIT, 18-20, Dec. 2006, Bhubaneswer, India, pp. 81-82 (**IEEE**).

- **P.M.Khilar and S.Mahapatra** "Distributed Diagnosis Algorithm For Not Completely Connected Networks", In Proc. of IEEE Conference INDICON 2006 15-17, September, New Delhi, India, 2006, (**IEEE**)

- **P.M.Khilar and S.Mahapatra "**Distributed Diagnosis in Dynamic Fault Environment", *In proc. of IEEE Conference INDICON 2005, Madras*, pp. 56-59, 11-13th, December, 2005. (**IEEE**)

NATIONAL JOURNALS/CONFERENCES (21)

2010-2013

- ***P.M.Khilar*** "Dependable Distributed Computing Systems", In Proceedings of national conference on Computing and Information Technology, at Chouskey Engineering College, Bilaspur, Chhatishgarh, India during 12th to 13th September 2013.

- **P.M.Khilar** "Fault Tolerant Routing in Wireless Sensor Networks", In Proceedings of Seminar on Advances of Sensors in Medical Science and Engineering, on 25th August 2012, organized by IEI Rourkela local Center and PIET, Rourkela, at IEI Building, Rourkela Local Center, Rourkela, India.

- **R. Sahoo and P.M.Khilar,** "Detecting Malicious Nodes in MANET Based on a Co-operative Approach", CCSN- 2011, National Conference on Computing, Communication and Sensor Networks, October 29-30th 2011, PIET, Rourkela, India. **(Best Paper Award)**

- **Bibhudendu Panda and P.M.Khilar**, " A Secured ID based Elgamel Signature Scheme and Message encryption for Data Communication", 7th National Seminar on Modern Trends in Data Engineering and Data storage, at Srusti Academy of Management, Bhubaneswar, on 1st May 2010.

- **Ganesh Reddy and P.M.Khilar,** " Secure Routing in MANET", in Proc. of National Conference on Emerging Trends and Applications in Computer Science, ncetacs-2010, 9-10, April 2010, Shilong, India

- **Sunil Reddy and P.M.Khilar**, " MIX: End-to-end Data Security in Sensor Networks using Mix of Asymmetric and Symmetric Cryptography", National Conference on Emerging Trends and Applications in Computer Science, ncetacs-2010, 9-10, April 2010, Shilong, India.

2002-2009

- **Manmath Narayan Sahoo and P. M. Khilar,** "System Level Fault Diagnosis in Distributed System" National Conference on Modern Trends of Operating Systems, MTOS – 2009, 23-27.

- **P.Lakshmi Ramana and Pabitra Mohan Khilar,** "Secured VRP For MANETS in Presence of Malicious Nodes", National Conference on Computing Techniques and Systems, (CTS'09), 24th April 2009, Rasipuram, Tamil Nadu, 220-223.

- **Manmath Narayan Sahoo and P. M. Khilar**, "Survivability of IEEE 802.11 Wireless LAN against Access Point Failure", National Conference on Advanced Computing, NCAC 2009, organized by Dept. of CSE, J.M.College (Autonomous), Tiruchirapalli, India, 27th Mar to 28th Mar 2009.

- **Sunil Kumar Senapati and P.M.Khilar,** "Securing FSR Against Data Packet Dropping by Malicious Nodes", National Conference on Recent Advances in Communication Technology (NCRACT-2009), NIT, Rourkela, India, 30th Jan to 1st Feb 2009, 116-118.

- **Subhasish Dhal and P.M.Khilar,** "Deterministic Merging of Blocks for Key Pre-Distribution in Wireless Sensor Networks", National Conference on Recent Advances in Communication Technology (NCRACT-2009), NIT, Rourkela, India, 30th Jan to 1st Feb 2009, 119-123

- **P.M.Khilar and S.Mahapatra,** "A Dynamic Distributed Diagnosis Algorithm for Value Faults and Crash Failures" In Proc. of National Conference in Current Trends in Information Technology, 16-17th May 2007, KEC, Bhubaneswer, India.

- **P.M.Khilar and et.al. "**A Comparative Study Between Customized and FPGA Product Devices – A Review" 46th Annual Technical Journal, Institution of Engineers, Bhubaneswer in February 2005 organized by IE(I) Bhubaneswer, Orissa.[**Won Gold Medal and Sundeep Mohapatra Memorial award]**

- **P.M.khilar** “A Stability Based Distributed Routing Mechanism for Mobile Ad-hoc Network” 49th Annual Technical Journal, OEC-2004, Bhubaneswer, PP.EECS26-EECS 36. 2nd Feb 2004 [**Won Gold Medal & First Prize**]

- **P.M.Khilar and et. al.** “An Energy Efficient Routing Protocol with Device Awarness in Heterogeneous Mobile Adhoc Networks” Proceedings of National Conference on “Advanced Image Processing and Networking”, NACIPAN 2004, Feb. 13 & 14th 2004, organized by National Engineering College, Dept. of CSE & IT, K.R.Nagar, Kovilpatti, Tamilnadu, India-628503, PP. (154-161).

- **P.M.Khilar and et. al.** “Evaluation of Computer Networks in TCP/IP Environment—a Review”, Proceedings of Annual Technical Session, OEC-2003, Bhubaneswer, EECS-1 to EECS-6,January 2003. **[Won 2nd Prize]**

- **P.M.Khilar and et. al.** “A Stability Based Distributed Routing Mechanism for Mobile Ad-hoc Network”, National Seminar on Mobile Communication, NSMC-2003, 31st Oct 1st Nov 2003, organised by C.V.Raman College of Engineering , Bhubaneswer ,PP. 76-85.

- **P.M.Khilar and et. al.** “DEAR: A Device and Energy Aware Routing Protocol for Heterogeneous Ad-hoc Network”, National Seminar on Mobile Communication, NSMC-2003, 31st oct-1st Nov 2003, organized by C.V.Raman College of Engineering ,Bhubaneswer ,PP. 86-97.

- **P.M.Khilar and et. al.** “ Evaluation of flow control in group communication”, CSI 2002, SRIJI College, AP

- **P.M.Khilar and et. al.** “An Architecture for Software Router”, Proceedings of 43rd Annual Technical Session-2002, IE (I), Bhubaneswar pp: 228-235, January 2002.

- **P.M.Khilar and et. al.** “Impact of IT on Web-based Education”, Proceedings of Annual Technical Journal, OEC-2002, Bhubaneswar, EECS-15 to EECS-22, January 2002.

BOOKS PUBLISHED (2)

BOOK CHAPTERS REVIEWED (1)

Title	Publisher	Year	Edn	Level	Co-author
Securing FSR Protocol Against Data Packet Dropping in Manet	Lap Lambert Academic Publishing (ISBN: 978-3-8383-5787-4)	2010	First	Graduate	S. K. Senapati
A Job-Grouping Based Scheduling Algorithm for Computational Grids	Lap Lambert Academic Publishing, ISBN 978-3-8473-0957-4	2012	First	Graduate	A. Mukherjee

Title	Book Title	Publisher Year	Edn	Level
Clustering Based Stability and Seasonability Analysis for Optimal Inventory Prediction	Global Trends in Knowledge Representation and Computational Intelligence	Springer 2013	1st	Graduate

BOOK CHAPTERS PUBLISHED (5)

MEMBERS OF PROFESSIONAL BODIES (13)

Title	Publisher	Year	Edition	Level	Co-author
A Survey on System Level Diagnosis in Distributed Networks	Tata Mc Grahill	2009	First	Graduate	S. Punyatoya
Distributed Micro-controller-based Actuator Fault Diagnosis in Multi-rate Fly-by-wire System	Tata Mc Grahill	2009	First	Graduate	S. Punyatoya
Scalable Distributed Diagnosis Algorithm for Wireless Sensor Networks	Springer	2011	First	Graduate	A. Mahapatra
Routing Protocols in Mobile Sensor Networks	Springer	2012	First	Graduate	M.Panda
GA : Application to Fault Diagnosis in Distributed Embedded Systems Chapter - 12	IGI Global Publications	2013	First	Graduate	N/A
Trust-Based Access Control in Cloud Computing Using Machine Learning	Springer	2019	First	Graduate	V. Chaudhari & R.R. Swain
Environmental Monitoring Under Uncertainty Using Smart Vehicular Ad Hoc Network	Springer	2019	First	Graduate	B. R. Senapati, & R. R. Swain
Optimization of Performance Parameter for Vehicular Ad-hoc NETwork (VANET) Using Swarm Intelligence	Springer	2019	First	Graduate	B. R Senapati,

- Name of professional body : ORISSA BIGYAN ACADEMY, BBSR, ORISSA
  Membership No:- 1618 Date:- 05-03-2012
  Duration:- Life Membership, Status:- LMOBA

- Name of professional body : AIRCC
  Membership No:- 128619 Date:- 23-06-2011
  Duration:- Life Membership, Status:- LMAIRCC

- Name of professional body : Internet Society, Reston, USA
  Membership No:- 45226 Date:- 28-02-2010
  Duration:- Life Membership, Status:- LMISOC

- Name of professional body : ACCS, Bangalore, India
  Membership No:- L266M1000281 Date:- 27-02-2010
  Duration:- Life Membership, Status:- LMACCS

- Name of professional body : IEEE, USA
  Membership No:- 90578217 Date:- 07-01-2010
  Duration:- Life Membership, Status:- MIEEE

- Name of professional body: ISCA, Kolkata
  Membership No:- L14200 Date:- 20-03-2009
  Duration:- Life Membership, Status:- LMISCA

- Name of professional body: IETE, New Delhi.
  Membership No:-LM201864 Date:- 02-04-2008
  Duration:- Life Membership, Status:- LMIETE.

- Name of professional body: IAENG, Hong Kong, China
  Membership No:- 100254 Date: 01-10-2007.
  Duration:- Life membership Status:- LMIAENG

- Name of professional body: OITS, Bhubaneswer.
  Membership No:- L/06/349 Date:- 18-12-2006.
  Duration:- Life Membership Status:- LMOITS

- Name of professional body : CSI, MUMBAI
  Membership No:- 00071726 Date:- 21-07-2001
  Duration:- Senior Member, Status:- LAMCSI

- Name of professional body: IE (I), Calcutta.
  Membership No:-M/121268/5 Date:-30-03-2001
  Duration:- Life Membership Status:- LMIE

- Name of professional body: OEC, Bhubaneswer.
  Membership No:-LM 762 Date:- 28-01-2001
  Duration:-Life Membership, Status:- LMOEC.

- Name of professional body: ISTE, New Delhi.
  Membership No:-LM 20354 Date:- 05-04-95.
  Duration:-Life Membership, Status:- LMISTE.

REFEREES

Prof. (Dr.) SUDIPTA MAHAPATRA, Associate Professor
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Prof. (Dr.) PALLAPA VENKATARAM, Professor
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Prof. (Dr.) S.S.Iyengar,
(AAAS Fellow, IEEE Fellow, ACM Fellow)
Roy Paul daniels Professor & Chairman,
Dept. of Computer Science,
Director, Robotics Research Laboratory, 298, coats Hall,
Lousiana State University,
Boton, Roung LA- 70802
Phone: (225) 578-1495
Fax: (225) 578-1465
Email:iyenger@bitcsc.lsu.edu

HARDWARE/SOFTWARE SYSTEMS DESIGN AND DEVELOPMENT

- Established the Parallel and Distributed Computing Lab in the department comprising of one IBM Think Center as Server and three IBM client machines. A total of 8 different machines along with server form a cluster using MPICH and GRIDSIM.
- Designed, developed and implemented a Microprocessor Based Communication System for INDAL, Hirakud, Sambalpur, Orissa, India.
- Designed, developed and implemented a project **“Distributed Learning Systems”**
- Designed, developed and implemented a project **“Transport Management System”**
- Designed, developed and implemented a project “**Automatic Courier Billing Systems using .NET technologies as Back End and Visual C++ as front end**”.
- Designed, developed and implemented a project **“Library Automation System using .NET technologies as back end and Visual basic as front end”.**

ACADEMIC OUTREACH ACTIVITIES

2021-2025

- Guest Speaker for the Engineers’ Day function on 15.09.2024 at the Institution of Engineers (India) Angul Local Centre at Angul, Odisha.
- Resource Person at 5-day boot camp on “Advances in Design-Optimization of Drones” during 22nd to 26th June 2024 Organized by Department of Mechanical Engineering, NIT Rourkela.

- Keynote Speaker for XAVIER INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE (XICAI 2024), Feb 29-Mar 2, XIM University (New Campus), Bhubaneswar, Odisha.

- Resource person in the Five day Workshop/Bootcamp proghramme on “Drone Technologies” during 18th March to 22nd March 2023 organized by Department of Electronics and Communication Engineering, NIT Rourkela (Sponsored by MeitY).

- Resource Person for the E & ICT Sponsored Online FDP on AI, ML and DS for Engineering Applications (2nd to 11th May 2024) organized by Department of CSE, NIT Warangal, Telangana and the Department of ECE, SJBIT Bengaluru, Karnataka

- Session Chair in Second International Conference on Computing, Communication and Learning (CoCoLe) during 29th to 31st August 2023 Sponsored by SERB Newdelhi and organized by NIT Warangal.

- Invited Talk on “Applied Artificial Intelligence for Motion Control of Unmanned Aerial Systems” is jointly organized by Dept. of Industrial Design and Mechanical Engineering during 02-06 Sept.2023.

- Resource person at 5-day boot camp on “Computational and Practical Approaches in Droine Technology. During 1st to 5th Dec 2023 Organized by Department of Mechanical Engineering, NIT Rourkela.

- Keynote Speaker (ATAL FDP) on Distributed Databases on 19th December 2023, organized by GIET Bhubaneswar.

2018-2020

- Delivered a speech on “COVID 19 “ in May 2020 at All India Radio, Rourkela.
- Judge for debate competition on the topic “Digital India” at St. Paul School, Rourkela organized by CSI Rourkela Local chapter on 17th Nov 2019.
- Member in the scrutiny committee for tendering process of Smart City Ltd Rourkela on Nov. 2019.
- Delivered expert talk in a five days Short Term Course on Application and Utilization of Automation in Steel and Industrial Sectors held during 21-25 October 2019 at NIT, Rourkela.
- Dsc Chairman for Ph.D students of BPUT.
- Delivered Invited Talk on “”VANET and Its Applications“,at IE(I) Rourkela, IOT: Applications to Steel Industry” Vizag Steel Plant (Sept 2019), and IOT and Its Applications at GCE Keonjhar (14th Oct. 2019) respectively
- Delivered a speech on “PMAY-G” in 10th July 2019 at All India Radio, Rourkela.

- Delivered a speech on “E-Learning” in 23rd May 2019 at All India Radio, Rourkela.
- Delivered a speech on “Digital Security” in July 2018 at All India Radio, Rourkela.
- Delivered a talk in the workshop on “Fault Tolerant Wireless Sensor Networks and Its Applications” organized by PSG College of Technology, Coimbatore, TN, on 12th Feb 2018.

1995-2013

- Delivered a talk in the national seminar on “Wireless Sensor Networks: The Recent Challenges” organized by CVRCE, Bhubaneswar during 13-14th Dec 2013.
- Delivered a talk on “Dependable Distributed Computing Systems” in the national conferences on “Advances in Computing and Information Technology” during 12th to 13th September 2013 at Chouskey Engineering College, Bilaspur, Chhattisgarh, India.
- Delivered a talk on “Issues on Distributed Networks” in the AICTE sponsored faculty development program on “Recent Trends in Advanced Computing” conducted by VSSUIT, BURLA, SAMBALPUR during 29th April to 11th May 2013.
- Delivered a talk on “Wireless Sensor Networks: Application to Medical Science” in Seminar on Advances of Sensors in Medical Science and Engineering on 25th August 2012 at IEI building, Rourkela Local Center, Rourkela, India.
- Delivered a talk on “Mobile Adhoc Networks” on the national workshop on Mobile Adhoc Networks and Its Current Research Trends at KISD, Bhubaneswar during April 28th to 29th March 2012.
- Delivered the keynote speech on the topic “Safety Critical Real Time Distributed Systems”, in the national conference on “Advanced Computing and Communication Technology”, (ACCT – 2012) at Chousksey Engineering College, Bilaspur, Chhattish Garh, India on 28th Jan 2012.
- Visited Singapore to deliver a talk on “Heartbeat Based Error Diagnosis Framework for Distributed Embedded Systems”, in 2011 International Conference on Software and Computer Technology, (ICSCT – 2011), 9-10, Dec 2011, Singapore.
- Delivered the keynote address on the topic “Advances in Distributed Computing Systems” in the national conference on “Recent Advances in Science & Technology”, at Synergy Institute of Engineering and Technology, Dhenknal, Orissa, India during 30 the Sept., to 1st October 2011.

- Presented an invited talk on the topic “Issues on Data Mining in Distributed Sensor Network” in the national conference on Data Mining, at OEC, Bhubaneswar during 3-4 Sept. 2011.
- Delivered an interactive session on the topic wireless sensor network with All-India Radio which was announced in the FM 102.6 channel on 16th August 2011 at 6:10 PM.
- Presented invited talk on “Distributed Sensor Networks” for “National Seminar on Advances in Sensor and its Networking” on 24th July 2011 organized by IE(I), CSI, and PIET, Rourkela, at IE seminar hall, NIT, Campus, Rourkela, Orissa.
- Presented invited talk on “Resource Management in Distributed Computing Systems” for “National Seminar on Parallel and Distributed Computing” on 16th July 2011 organized by Department of Computer Science & Engineering, Silicon Institute of Technology, Bhubaneswar, Orissa.
- Presented invited talk on “Fault Tolerant Computing in Safety Critical Applications” on 29th June 2011, at Dept. of Computer Applications, Utkal University Vani Vihar, Bhubaneswar.
- Presented invited talk on the theme “Better Life in Rural Communities with ICTs”, for “World Telecommunication and Information Society Day” on May 17, 2011, at the Local Center, IE(I), NIT Campus, Rourkela.
- Presented invited talk on “Research Issues on Pedagogical Methods in Engineering Education” on 13th May 2011, at Gandhi Institute of Technology at Bhubaneswar.
- Presented invited speech on “Advances in Computer Architecture“ during 27th February 2011, at National Institute of Science and Technology, Berhampur, Orissa.
- Presented keynote speech on “Advances in Computer Science and Information Technology” for “Technocom-2011” during 25th and 26th February 2011 at Al-Ameer College of Engineering and IT, Visakhapatnam, Andhra Pradesh.
- Presented key note speech on “Issues on Emerging Class of Distributed Systems” in International Conference on Computer Technology, during 3-5th December 2010 organized by C.V. Raman College of Engineering, Bhubaneswar, India
- Presented invited talk on “Wireless Sensor Networks and its Applications” in all India Seminar on Computing, Communication and Sensor Network organized by IE (Rourkela Chapter) and PIET, Rourkela during 30-31st October 2010, at PIET, Rourkela, India

- Presented invited talks on “Fault Tolerance Issues in Machine Learning Systems” in AICTE sponsored SDP on “Machine Learning Methodologies and Their Applications” at GIET, Gunupur during 27th April to 11th May 2010.
- Presented invited talk on “Distributed Networks and Its Applications” in the seminar on “ICT in society” organized by IE, CSI & PIET Rourkela, India on 29th March 2010.
- Presented invited talks on the topic “Wireless Sensor Network and Its Applications” on 20th February 2010 at GIET, Gunupur, India.
- Presented invited talk on the topic “Next Generation Computers” at Institution of Engineers, NIT Campus, Rourkela on 11th January 2010.
- Presented invited talk on “Fault Tolerant Computing” in the UGC sponsored refresher course on Information and Communication Technology Application (ICT) during 15th Dec 2009 to 4th Jan 2010 held at the department of Computer Applications, Utkal University, Bhubaneswar.
- Delivered invited talk on “Fault Diagnosis in Distributed Systems” in the workshop on Bioinspired Computing and Application (BICA 2009) during 21-22 Dec 2009 at ITER, Siskha O Anusandhan University, Bhubaneswar.
- Delivered invited talks in the workshop on “Advanced Operating Systems” as a technical resource person organized by Trident Academy of Technology, Bhubaneswar and in collaboration with OITS, Bhubaneswar, NWAOS-2009, during 5th-7th Sept. 2009.
- Delivered a talk “Software Fault Tolerance” in the AICTE sponsored Staff Development Program on “Advanced Software Engineering Techniques and Their Applications” during 8th to 21st June 2009 organized by dept. of Computer Sc. & Engg., NIT, Rourkela.
- Delivered speech as chief-speaker in the workshop on **Advanced Operating System & Architecture** on 31st March 2009 organized by department of CSE, Purushotam Institute of Engineering & Technology, Rourkela. Also, delivered an expert lecture on “Computer System Architecture” in the same workshop.
- Delivered a lecture and conducted a lab session on 11-01-2009 about “**Teaching Skills**” in the workshop on Pedagogy for Engineering Education during 9th - 11th Jan 2009, organized by dept. of Electronics and Communication Engineering, NIT, Rourkela – 769008

- Delivered a lecture on “Pedagogy for Engineering Education” in 26th Dec 2008 for the AICTE-MHRD Staff Development Programme on “Image Processing Fundamentals and Advances “ during 15th - 28th Dec 2008, organized by dept. of Comp. Sc. & Engg, NIT, Rourkela – 769008.
- Delivered the course on “Interconnection Networks” in the AICTE-MHRD Staff Development Programme on “**Computer Architecture and Design**” during 27th Oct – 11th Nov 2008 organised by dept. of Comp. Sc. & Engg., NIT, Rourkela – 769008

- Visited USA during Nov 19-21 2007 for presenting a paper titled “**A Fault Diagnosis Algorithm for Wireless Sensor Networks**” in the International Conference on Parallel and Distributed Systems, Cambridge, MA, USA.
- Presented lectures on **“Reconfigurable Computing & FPGA Architecture”** at the department of EIE, NIT Rourkela in 13th **May 2003** as resource person for practical training on VLSI
- Presented a lecture on **“Access to Information: Networking is the Key Technology”** at Institute of Engineers (I), Rourkela local Center (NIT CAMPUS) on **17th April 2003.**
- Presented a series of lectures on **“Graph Theory and Its Applications” at IBCS, Bhubaneswar (SOA University) during March-April 1999.**
- Presented a lecture on **“Computers and Its Application“** at Institution of Engineers (I), Bhubaneswar Center during March 1997.
- Presented a series of lectures on **“Computer Applications”** at College of Engineering and Technology, (OUAT), Bhubaneswar during years 1995-1997.

PARTICIPATION IN CEPs/ WORKSHOPs/ SEMINARs/SYMPOSIUMs /MEETINGs /BOARD OF STUDIES /WEBINARS

1995-2011

- Participated in the paper meeting on 4G LTE Smart Phone Architecture by Dr. Mohit K. Prasad, Sr. Staff Engineer, Qualcomm Inc, San Diego, California, USA, on 23rd Dec 2011, organized by IE(I) Rourkela Local Center, India.

- Participated in IBM On-line Webinar on Cloud Computing on 05-08-2011, 12-08-2011, 25-08-2011
- Participated in the paper meeting on the topic "Cloud Computing – How it is Changing the Professional & Social World", and "Intelligent Power Plant" on 19th Nov. 2010 and 14th February 2011 respectively organized by IE(I), Rourkela Local Center, Rourkela, India.
- Participated the board of studies meeting for revising syllabus of B.Tech Computer Sc. & Engg and IT, BPUT, Rourkela on 12-11-2010 at Bhubaneswar.
- Participated in the one-day workshop on "Research & Development Opportunities in Fusion Science and Technology" on 11-10-2010 organized by NIT, Rourkela and IPR, Gandhinagar, India.
- Participated in IBM On-line Seminar on High Performance Computing and Advanced Operating Systems on 03-09-2010, 07-09-2010, 16-09-2010, 17-09-2010, 24-09-2010, 01-10-2010 and 08-10-2010.
- Participated in training program on "Statistica for data mining" during 30-31st Jan 2010 organized by computer center, NIT, Rourkela.
- Participated in the workshop on Restructuring of Academic Programmes of NIT, Rourkela in Electrical Sciences organized by Dept. of Electrical Sciences (Computer Science, Electrical and Electronics), NIT, Rourkela during 23rd Oct 2009 to 24th Oct 2009.
- Participated in the ONE DAY PROFESSOR's WORKSHOP ON FPGA SYSTEM DESIGN USING ALTERA TOOLS organized by Dept. of Electronics and Communication Engineering, NIT, Rourkela on 19th September 2009.
- Participated in the workshop on **Pedagogy for Industry-Institute interaction "Insight '09"** conducted by Infosys Center, Bhubaneswar, during 14-15th September 2009.
- Participated in the MHRD short term course on "**High Performance Computer Architectures**" in the department of Computer Science & Engineering, at IIT, Kharagpur during 11th July to 16th July 2009. [**One Week**]

- Member of Board of studies for designing courses of study for 5-year integrated MSc in Computer Science at Rourkela Government College, Rourkela from April 2009.
- Member in the panel for design of courses of study of 5 years Integrated MCA program for Sambalpur University.
- Participated in the national workshop on **"Mathematical Aspects of Computer Science"** during March 14-15, 2009, organized by School of mathematics, Statistics & Computer science, Sambalpur University, Jyotivihar, Burla, Orissa.
- Participated in the TE-QIP Programme on **"Pedagogical Training in Engineering Education"** at Engineering Staff College of India, Hyderabad during 13th to 25th Oct 2008. [**Two Weeks**]
- Participated in the MHRD short term course on "**Embedded Systems**" in the department of Computer Science & Engineering, at IIT, Kharagpur during 2nd July to 15th July 2008. [**Two Weeks**]
- Participated in the DST Sponsored national workshop on "**Some Recent Research Directions in Graph Theory"** in the department of Mathmatics at IIT, Kharagpur, 26-30 May, 2008. **[One Week]**
- Participated in the short term course on "**Effective Teaching Skills"** during 31st JAN to 5th FEB, 2005 at IIT Kharagpur organized by dept. of Humanities & Social Sciences. **[One Week]**
- Attended the Faculty Development Program on "**Reconfigurable Computing, FPGA design lab and System Hardware Design "** organized at the resource center – **IIT, Bombay**, under special manpower Development Project **(SMDP)** on VLSI Design of related software, sponsored by the dept of Information Technology and conducted at the dept of CSE from **3rd June 2002 to 28th June 2002. [Four Weeks]**
- Attended the Faculty Development Program (IEP) on "**Advanced Networking-Internet and Intranet"** under **project SSS IMPACT** organized by resource centre **Jadavpur University** from **19th Nov 2001 to 30th Nov 2001. [Two Weeks]**

- Took Internal Auditors training at **NIT, Rourkela** from **05-04-2000 to 06-04-2000** and from **28-09-2000 to 29-09-2000** for implementation of ISO-9000.
- Attended workshop on "**ISO 9000 Implementation-CUM-Half Yearly Appraisal Workshop**" under project **SSS-IMPACT** at Bangalore from **19-07-2000 to 21-07-2000 sponsored by MIT**, New Delhi.
- Attended workshop on "**Yearly Progress Report and Web-Based Education**" under project **SSS-IMPACT** at IISc, Bangalore from **21-12-99 to 24-12-99 sponsored by MIT**, New Delhi.
- Attended XXXII annual convention from **13th Nov 97 to 16th Nov 97** at Ahmedabad, Gujrat, **sponsored by CSI.**
- Attended the winter school on "**INSTITUTIONAL PLANNING AND MANAGEMENT** "organized by C.E.T, OUAT, Bhubaneswar from **10th Feb 97 to 15th Feb 97 sponsored by AICTE. [One Week]**
- Attended the "**ACADEMIC STAFF ORIENTATION COURSES FOR TECHNICAL TEACHERS**" at UTKAL UNIVERSITY, Vanibihar, Bhubaneswar from **10th October 95 to 30th October 95, sponsored by AICTE, New Delhi. [Three Weeks]**

AWARDS FROM PROFESSIONAL SOCIETIES/ACADEMICS (10)

- **"The Innovative Mentor Award " by Amdocs, Pune – 2018**
- **Outstanding Reviewer Award by Journal of Adhocs Elsevier Science 2018**
- **The IET Networks Premium Award – 2016**
  Title of the Paper: Vehicular Communication: A Survey
  Journal: IET Networks, Vol. 3, Issue 3, 2014, pp. 2014-217.
- **Best Paper Award – 2011**
  Title of the Paper: **An Improved Protocol for Proxy Based Certification Authority for MANETs",**
  Name of Conference: International Conference on Communication Networks and Security,
  Duration/Period: Nov. 13-14, 2011, **Place:** Hotel Presidency, Bhubaneswar, India. **(IRNet)**
- **Best Paper Award – 2011**

Title of the Paper: **Detecting Malicious Nodes in MANET Based on a Co-operative Approach.**
Name of Conference: Second All India Seminar on Application of Sensor Networks for Security of Industry,
Duration: 29-30 th October 2011, **Place:** PIET, Rourkela, India

- **IE (I) Project Grant-in Aid Project Award 2011**
  For the project "**Corporate Portal Management System**".

- **IBM Faculty Award 2011 (For Mentoring Industrial (IBM) Live Projects).**

- **Best Paper Award** – 2009
  Title of Paper:- **ID-NIKD based Security of Temporary Key during Path Key Establishment in Key Pre-Distribution for WSN**.
  Name of Conference: Fourth Innovative Conference on Embedded Systems, Mobile Communication and Computing,
  Duration: 27th – 29th July, 2009 **Place:** Bangalore, India. Pp. 9-14

- **Won Gold Medal and Sundeep Mohapatra Memorial award – 2005**
  Title of Paper:- A Comparative Study Between Customized and FPGA Product Devices – A Review
  Name: Technical presentation at, Institution of Engineers, Bhubaneswer in
  Duration: February 2005 **Organized by:** IE(I), Bhubaneswer, Orissa.

- **Gold Medal and First Prize – 2004**
  Title of Paper : "**A Stability Based Distributed Routing Mechanism for Mobile Ad-hoc Network**
  Name: Technical presentation at, Institution of Engineers, Bhubaneswer
  Duration: 2nd February 2004 **Organized By: Orissa Engineering Congress, Bhubaneswer, Orissa.**

- **2nd Prize – 2003**
  Title of Paper:- "Evaluation of Computer Networks in TCP/IP Environment-A Review."
  Name: Technical paper presentation at Institute of Engineers, Bhubaneswer
  Duration: January 2003 **Organized by: Orissa Engineering Congress Bhubaneswer, Orissa**.

NO.OF PH.Ds GUIEDED (12)

Sl. No	*Name of the Student*	*Thesis Title*	*Year Awarded*
1	A. Mohapatra	Fault Diagnosis Algorithms for Wireless Sensor Networks	2014

		(Defence Date: 01/10/2013)	
2	M. N. Sahoo	Distributed Fault Diagnosis in Wireless Adhoc Networks **(October 2014)**	2015
3	M. Panda	Distributed Self Fault Diagnosis in Wireless Sensor Networks Using Statistical Methods **(Defence Date: 19/08/2015)**	2016
4	J. Singh	Slicing of Aspect Oriented Programs and Its Application to Software Refactoring **(Defence Date : 30/12/2016)**	2017
5	N, Panigrahi	Clock Synchronization in Distributed Computing Systems **(Defence Date: 05/01/2017)**	2017
6	M. Singh	Geometric Constraint Based Range Free Localization Scheme For Wireless Sensor Networks **(Defence Date: 25/04/2017)**	2018
7	Saurabh K. Bhoi	Path Selection Based Routing Protocols for Urban Vehicular Adhoc **Networks** **(Defence Date: 01/06/2017)**	2018
8	Rakesh Ranjan Swain	Design and Evaluation of Composite Fault Diagnosis Protocols for Wireless Sensor Networks **(Defence Date: 28/08/2019)**	2019
9	Santoshinee Mohapatra	Fault Diagnosis in Wireless Sensor Networks using Artificial Immune Systems **(Defence Date: 14/09/2020)**	2020
10	Biswaranjan Senapati	Performance Enhancement of Vehicular Adhoc Networks(VANET(for Real Time Applications in Smart Cities **(Defence Date: 2021)**	2022
11	Sipra Swain	Efficient Ground Area Coverage using UAV Networks **[Defence Date: 12/04/2024]**	2024
12	Puja Suman Tripathi	Amorphous Based Localization Algorithm for Wireless Sensor Networks [Defence Date: 2024]	2025

NO. OF PH.Ds GUIEDED (Other Universities)(2)

Sl. No	***Name of the Student***	***Thesis Title/Topic /Status***	***Duration***	***Name of University***
1	*Sudhir M*	*Performance Evaluation of Clusters of Workstations* ***(Date of Defence: 24/06/2017)***	*Dec 2013-June 2017*	*CV RAMAN UNIVR, BILASPUR*
1	*M.Gaurasia*	*Task scheduling in Cloud Computing Systems* ***(Date of Defence: 2023)***	*Dec 2019-June 2023*	*KIIT University, Bhubaneswar*

M.TECH (R) COMPLETED (2)

Sl. No	Name of the Student	Thesis Topic	Month/ Year
1	Swastisudha Punyatoya	GA-Based Fault Diagnosis Algorithm for Distributed Systems	May 2012
2	Yostna Jaiswal	Fault Tolerant and Energy Aware Geographic Routing Algorithms for MANETS	April 2013

MASTERS THESIS COMPLETED (58)

Sl. No	Name of the Student	Thesis Title/Topic	Year
1	S. M. Seji	Traffic Event Detection using Convolutional Neural Network	2020
2	SOUMAJIT MULLICK	Driver Behavior Profiling using Machine Learning	
3	NIKKI KUMARI	Road Crack Detection using CNN	
4	BRAHMABIT MAHAPATRA	Distributed Fault Diagnosis in Wireless Sensor Network using Time Series Prediction	
5	Eswar Prithvi (Dual)	Detection of Emergency Vehicles in Intelligent Transportation System	2019
6	Vivek Anand	Data Fault Diagnosis in Wireless Sensor Network using Spatial and Temporal Correlation	
7	Rohon Das	Driver Behavior Profiling in VANETs	
8	Debal Chakraborty	Environment monitoring using Wireless Sensor Network	
9	Shubham (Accenture)	A Hybrid Trust Based Access Control Framework for Cloud Computing	2018
10	Tisan Das (Tera Data)	Range Free Localization in Wireless Sensor Network	
11	Deepak Kumar (Accenture)	Distributed Traversal Based Fault Diagnosis in Wireless Sensor Network	
12	Abhisek Kesarwani (Pursing Ph.D at NIT, Durgapur)	Development of Trust Based Access Control Models Using Fuzzy Logic in Cloud Computing	
13	Vijaya Chaudhuri NIC, Delhi	Trust Based Access Control in Cloud Computing Using Machine Learning	
14	Sugyani Mohapatra (Dual Degree)	Synchrony Analysis of Yoga Nidra Meditation Using Music as a Control	
15	J.Kakadia	Uniformely Distributed Load Balancing and Bandwidth Delay Service Broker Policy in Cloud Computing	2017
16	A. Katiyar (TCS)	Analysis and Design of MAC protocols in Wireless Sensor Networks	
17	S. S. Khatua	Performance Evaluation of Secured Patiant	

		Monitoring System in Health Care Systems	
18	C. B. Riyani	Performance Evaluation of Task Scheduling in Cloud Based on Load Balancing and Ant Colony Optimization	
19	Swarupa Pattanaik	Energy Optimization in Data Centers of Cloud Systems	2016
20	Ansari, Toseef Ahmed	*Modified Scheduling Service Workflow in Hybrid Cloud.*	2015
21	Behera, Pratap Kumar (Pursuing Ph.D at IIT, Roorkey)	*Novel Trust Based Access Control Model for Cloud Environment*	
22	Bahadure, Sushant R	*Securing Mobile Ad Hoc Networks Against Packet Dropping Attack.*	
23	Koshy, Rohan	*Automatic Migration of Data to NoSQL Databases Using Service Oriented Architecture.*	
24	Krishna, Varri Murali	*Performance Evaluation of Scheduling Algorithms for Real Time Cloud Computing Systems.*	
25	Sahu, Bandita	*EESCDE: An Energy Efficient SNR-Based Clustering With Data Encryption.*	
26	ASTHA MISHRA	Data Privacy in Cloud	2014
27	NIPUN MADAN	Resource Scheduling in Cloud Computing	
28	MANISH KUMAR	Authentication in Cloud	
29	ABHISEK SINGH	Distributed Computing	
30	PRIYESH MANJAPARA	WSN	
31	SAMEER KUMAR MANDAL	On-Demand Heuristic for a Class of Independent Tasks in Computational Grids	2013
32	PRANESH DAS (Faculty at NIT, Nagland)	Virtualization and Fault Tolerance in Cloud Computing	
33	IMRAN HOSSAIN FARUK	A Novel Approach of Secure Routing Protocol for Mobile Ad Hoc Networks	
34	SOURAV KUMAR BHOI (Assistant Professor, P.M.E.C, Berhampur)	SGIRP: A Secure and Greedy Intersection Based Routing Protocol for VANET using Guarding Nodes	
35	RAKESH MAHARANA	An Improved User Authentication Protocol for Hierarchical Wireless Sensor Networks using Elliptic Curve Cryptography	
36	SANJAY KUMAR PANDA Assistant Professor, VSSUIT, Sambalpur)	Efficient Scheduling Heuristics for Independent Tasks in Computational Grids	
37	PRATIK AGRAWAL (At IBM)	A Novel Heuristic for a Class of Independent Tasks in Computational Grids	
38	Neethu Krishna	Improved Load Balancing Technique for Wireless	

	Faculty at NIT, Calicut	Sensor Networks Using Divisible Load Theory	2012
39	Sukesh Babu V.S	Fault Tolerant Clock Synchronization in Distributed Systems	
40	Sunil Kumar Gouda (Faculty at NIT,Allahabad)	Load Balancing in Homogeneous Broadcast Distributed Systems and Grid Networks	
41	V. Harish Kumar	Secure Load Balancing in Grid Computing Environment	
42	Madhu Rakesh Y	Localized Fault Detection Scheme for Wireless Sensor Networks	
43	Arijit Mukharjee System Engineer, IBM	Resource Management in GRID Systems Using GridSim	2011
44	Rabi Tejja Reddy AMDOCS	Algorithm based on Booth's Encoding Pattern for Fast Scalar Point Multiplication in ECC for Wireless Sensor Networks	
45	Preeti Sachen Software Engineer HCL, Noida, New Delhi	Authenticated Routing for Ad-hoc On-Demand Distance Vector Routing Protocol	
46	Nishi Yadav *(Topper, Computer Science Specialization), Faculty at Central University, Bilaspur, Chhatishgarh*	Hierarchically Adaptive Distributed Fault Diagnosis in Mobile Ad hoc Networks using Clustering	2010
47	Nilam Benerjee	Algorithms for Intermittent Fault Diagnosis in Wireless Sensor Networks using Clustering	
48	M.Sunil Kumar Reddy (Faculty at Rajmundry,AP)	Energy Efficient Location Aware End-to-end Data Security Scheme for Wireless Sensor Networks	
49	K. Ganesh Reddy (Ph.D scholar at NIT,Surathkal)	Malicious Node Misbehavior Detection and Reaction using Challenged Node Technique in MANET	
50	Santi Kumari Behera *(Faculty at VSUIT, Burla, Sambalpur)*	Fault Diagnosis in Wireless Sensor Networks Using Timed Automata	
51	Manmath Narayan Sahoo *(Topper, Computer Science Specialization), Faculty at NIT, Rourkela.*	A Novel Approach for Survivability of IEEE 802.11 WLAN Against Access Point Failure	
52	Sunil Kumar Senapati	Securing Fisheye State Routing Algorithm Against	

	(Topper, Information Security Specialization), System Engineer, GRIDCO, Bhubaneswar, Orissa,India	Data Packet Dropping By Malicious Nodes in MANET	2009
53	Subhasish Dhal *(Faculty at IIIT, Gauhati)*	Application of Transversal Design and Secure Path Key Establishment for Key Pre-Distribution in WSN	
54	P.Lakshiraman *(Faculty, Central University, Hyderabad)*	Secured VRP for MANETs in Presence of Malicious Nodes	
55	Deepak Krishnamurthy	Implementation of a Generic Modular Cryptosystem for the RSA on Recinfigurable Hardware	
56	J. K. Singh *(System Engineer, Samsung Electronics, Noida, New Delhi)*	Algorithms for Fault Detection in Wireless Adhoc Networks and GRID Systems	2008
57	Rupak Chakraborthy	An Energy efficient Routing Protocol with Device Awareness for Heterogeneous Mobile Ad Hoc Networks	2004
58	Debendra Kumar Behera	Study of Algorithms For Adaptive Distributed System-Level Diagnosis	
59	Flora Nanda *(Faculty at VSSUT, Orissa)*	Simulation Study on Software Router Architecture	2003
60	Sanjit Kumar Barik *(Faculty, Orissa School of Mining Engineering)*	Evaluating the Performance of Distributed Information Retrieval System	
61	Ajay kumar	A Stability Based Distributed Routing Mechanism for Mobile Ad-hoc Network	
62	K.Venkata Subbaiah *(Associate Professor, Dept. of CSE, K.S.R.M College of Engineering, Kadapa, AP.)*	Evaluation of Flow Control in Group Communication	2002

MASTERS THESIS COMPLETED (BPUT, SU, BU & SSSUTMS, BHOPAL*)(6)*

Sl. No	**Name of the Student**	**Thesis Topic**	**Institute/University**	**Year**
1	Illa Swain (Faculty at OEC,	Weighted Clustering in Wireless Adhoc Networks	CET, Bhubaneswar/BPUT	

	Bhubaneswar, Orissa)			2010
2	Reena Sahoo	Malicious Node detection in MANET	Sambalpur University, Jyoti Vihar, Sambalpur, Orissa	2011
3	Sefali Das (Faculty at DA MITs, Rourkela)	Algorithms for Fault Detection in Wireless Sensor Networks using Clustering	Sambalpur University, Jyoti Vihar, Sambalpur, Orissa	
4	Saqlin Ahamad Khan (Faculty at RIT, Kalunga, Rourkela)	Efficient Routing Algorithms for WSN	Berhampur University Berhampur, Orissa	
5	Shivani Patri	Hierarchical Trust Based Access Control in Cloud	Sambalpur University, Jyoti Vihar, Sambalpur, Orissa Sambalpur	2017
6	Nalini Jalumuru	'Fault Tolerant Task Allocation in Cloud with Reinforcement Learning Using ACO'	SSSUTMS, BHOPAL	2019

B.TECH THESIS COMPLETED (60)

Sl. No	Name of the Student	Thesis Topic	Year
1	Bikash Kumar Gupta	Fault Tolerance in Distributed Systems	2010
2	Sangram Jyoti Bal		
3	Amit Vishal Mundu	The Application of System Level Diagnosis Approaches for Fault Detection and Its Implementation in Ad-hoc Networks	
4	Summet Gupta		
5	Soumitri Mohanty	Load balancing in Wireless Sensor Network Using Divisible Load Theory	
6	Asit Arunav Mohapatra		
7	Shakti Pinaki Mishra		
8	Jagnyashini Debadarshini	Communication Aware Load balancing for Parrallel Applications in Cluster	2011
9 10	Ram Prasad Padhy Goutam Prasad Rao	Load Balancing in Cloud Computing Systems	
11	Argha Sen	Load Balancing using MPI	
12	Swagat Mishra (Departmental Nominee for institute's best project award)	Resource Allocation Optimization Through Task based Scheduling Algorithms in Distributed Real Time Embedded Systems	

13	Anupam Verma	Time Constrained Fault Tolerance and Management framework for k-connected distributed wireless sensor networks based on composite event detection	
14	A Guru Bala Krishna Naidu	Corporate Portal Management Systems	2012
15	Ankit Gupta		
16	Bhargav Nilgiri		
17	Lipsa Sahoo	Design and Implementation of IEEE 754 Floating Point Standard	
18	Ruby Dev		
19	Nitesh Kumar	Routing Protocol for Computer Networks	
20	Govind Upmam	Identifying Persistent Faults in Distributed Systems	
21	Sunil Oram		
22	Amit Gupta	Fault Diagnosis Algorithms in Distributed Networks	2013
23	Rigveda		
24	Shasikant Gupta	Resource Allocation Policy for Virtualized Network Interfaces	
25	Bojja Reddy		
26	Ankita Jena	Improvement in ECC Digital Signature	
27	Saraswati Mishra	Fault Tolerance in Mobile Wireless Networks	2014
28	Preeti Swapna Tirkey		
29	Durbar Show	Improved Cloud Architecture	
30	Pankaj malviya		
31	Shivraju Kefranath	Node Replication Attack in MWSN	
31	*Manas Mahapatra*	*Node Replication Attack in MWSN*	
32	Kumar, Alok	T*arget Simulator for Gun Fire Control System.*	2015
33	Mahapatra, Soumya Prakash	*Analysis of WDM and Wavelength Assignment in Optical Networks.*	
34	Sundaram Mishra	*Improved On-demand Routing Protocol in Mobile Ad-hoc Network.*	
35	Singh, Abhishek		
36	Sharifi, Abdul Hadi	*Efficient Client-Server Assignment for Internet Distributed Systems*	
37	Tagirisa, Siddhardha	*Improving Performance of Job Scheduling Algorithms in Cloud Computing Environment.*	2016
38	*Sachidananda Moharana*	*Development of Wireless Sensor Networks for Object Detection*	

39	Jyoti Swain	Localization in Wireless Sensor Networks Using KNN and Genetic Algorithm	2017
40	Sarini Nanda	Range Based Localization in Wireless Sensor Networks Using Least Squares and Statistical Methods	
41	Abinash Sahoo	Range Free Localization in Wireless Sensor Networks Using Trilateration	
42	Jyotirmaya Ghosh	Environmental Monitoring System Using Unmanned Surface Vehicle	
43	Priyanka Prasad	Comparison of Classifiers for Sentiment Analysis	2018
44	Nali Naveen	Fault Tolerant Position Based Secure Routing Protocol in Vanets	
45	S.Bhanu Prakash	Trust Based Access Control Model in Cloud Computing	
46	A.S.Satya Sairam	Multi Domain and Decentralized Trust Based Access Control Model in Cloud Computing	
47	Md Tasnim Alam	WSN Based Coal Mine Safety Monitoring System Using IOT	
48	Sagar Bhusal	Real Time Health Monitoring System using Wireless Sensor Network	
49	PAPPU SRI BADRI RAJ SANDEEP	Detection and MItigation of BlackHole Attack in VANET	2019
50	GURRAM DILEEP REDDY	Scheduling of Nodes in Wireless Sensor Networks to prolong Network Lifetime	
51	TELLAKULA SATYA KRISHNA	Efficient Detection of Malicious nodes in VANETs	
52	SAIKAT DUTTA TANU	Waste Management for Smart Cities	
53	SHAHROZ ALI ARIFI	Android Application Development (MediCS App)	2020
54	BODDULA SAHITHI	Detection of Wormhole Using Spanning Trees in Wireless Sensor Networks	
55	GAJA HARIKA		
56	MANEESH KUMAR JENA	Simulation of Algorithms for Fault Detection in Wireless Sensor Networks (WSNs)	
57	BIBHASH MORANG		

58	C. LALNUNCHAMA	Automatic Attendance System using Facial Recognition Technique	
59	ANANYA PADHI	Smart city accident detection using VANET	
60	ARNAPURNA SATAPATHY	Aid marketing between dealers and customers in Smart city using VANET	

PH.D GUIEDANCE UNDER PROGRESS (10)

Sl. No	**Name of the Student**	**Thesis Title/Topic /Status**	**Year of Joining**
1	Nishi Yadav	Localization (Registration Completed)	2020
2	S.Nayak	Data Imputations (Progree Seminar Completed)	2020
3	Pankaj S. Yadav	Localization (Registration Completed)	2021
4	Vara Prasad	FANET (Registration Completed)	2021
5	Sushant Kumar	VANET (Enrolled)	2020
6	Prashant K. Nayak	ML(Registration Completed)	2020
7	Gyan Ranjan Sethi	Cloud Computing(Enrolled)	2020
8	Chinmayee Behera	WSN (Course Work and Comphrenssive Completed)	2020