

CURRICULUM VITAE

Dr. Rakesh Mohanty

[Eternal Learner | Harmonious Thinker | Passionate Teacher | Diversified Researcher | Creative Writer]

Office Address

Room No. CS-117
Department of Computer Science & Engineering
Veer Surendra Sai University of Technology, Burla
Sambalpur, Orissa, (India) - 768018
E-mail: rakesh.iitmphd@gmail.com

Correspondence Address

#530, 12th Cross Road, RHCS Layout
Annapoorneswari Nagar, Nagarbhavi
BENGALURU
Karnataka, INDIA - 560091
Contact - +91-7008585072

Profile : <https://www.linkedin.com/in/dr-rakesh-mohanty-94ba1334/>

Web Page : <https://sites.google.com/site/rakbgr3/research>

VISION: Finding solutions to challenging problems and developing models for growth of the society.

MISSION: Improving living standards of people with the use of Computer and Information Technology.

VISION FOR THE ORGANIZATION: Collaborative team work and contribution to generate at least Rs 1 Crore Revenue per Year and improve NIRF ranking and QS World Ranking.

VISION FOR THE DEPARTMENT: To establish a Center of Excellence on Foundations and Emerging Computing Technologies (FECT) for undertaking multidisciplinary collaborative research work to solve challenging social problems and introduce a B.Tech. course in Algorithm Engineering.

DREAM PROJECT: Design and Analysis of a novel Quality Teaching and Research Model for nurturing next generation talents.

EDUCATIONAL BACKGROUND

- **PhD, Computer Science and Engineering, I.I.T. Madras, India, 2014 – (7.75/10 CGPA)**
- **M.Tech., Computer Science and Technology, J.N.U. New Delhi, India, 2002 (87.7%)**
* (All India Rank - 4 in Final Merit List of JNU M.Tech. Entrance Exam. 2000)
- **B.E., Computer Science and Engineering, V.S.S.U.T (U.C.E), Burla, Orissa, India, 1998.**
(74.7% - Rank-5 in B.E. Computer Science & Engg. in VSSUT(UCE), Burla)
- **+2 Sc. Rajendra College, Balangir, Council of Higher Secondary Education, Orissa, 1993.**
(61.3 % - Rank - 1 in College in CHSE Exam)
- **10th, Menda High School, Balangir, Board of Secondary Education, Orissa, 1991.**
(83.3% - Rank-1 in School and Rank -30 in Orissa state in Merit List in HSC Exam)

ONGOING EDUCATION (Pursuing Online)

- **MBL(Master of Business Laws), NLSIU, Bengaluru [Expected Graduation-December 2023]**
- **Micro Masters in Business Management, IIM, Bengaluru [Expected – June 2023]**
- **PG Diploma in Human Rights Law, NLSIU, Bengaluru [Expected –July 2023]**
- **PG Diploma in Cyber Laws Cyber Forensics, NLSIU, Bengaluru[Expected July 2023]**

RESEARCH PUBLICATIONS [Total Nos = 52, Journals=27, Conferences=25]

[Google Scholar – Citations =350, h-index=7, i-10 index = 5]

10 Best Publications

- Debasis Dwibedy and **Rakesh Mohanty**. Semi-online scheduling: A survey. *Computers and Operation Research*, **Elsevier, UK**, 139:105646, 2022. [**SCI IF=5.159**]
- Debasis Dwibedy and **Rakesh Mohanty**. Online scheduling with makespan minimization: State of the art results, research challenges and open problems. *SIGACT News, ACM, USA*, 53(2): 84-105, 2022. [**SCI IF=1.75**]
- Debasis Dwibedy and **Rakesh Mohanty**. A Note on Hardness of Multiprocessor Scheduling with Scheduling Solution Space Tree.(accepted) *Computer Science, AGH, Poland*, 2022.
- Debasis Dwibedy and **Rakesh Mohanty**. A 2-Competitive Largest Job on Least Loaded Machine Online Algorithm Based on the Multi List Scheduling Model. *AISC, Springer*, Vol. 1412, *ICMC* : 563-574, 2021.

- Sheetal Swain, **Rakesh Mohanty**, Debasis Dwibedy. New Results on Competitive Analysis of Online SRPT Scheduling. *AISC, Springer*, Vol. 1412, *ICMC*, 967-977, 2021.
- Debasis Dwibedy and **Rakesh Mohanty**. A New Fairness Model Based on Users Objective for Multi-user Multi-processor Online Scheduling Problem, *Lecture Notes in Electrical Engineering (LNEE)*, *Springer, ADCOM*, 869, 453-465, 2020.
- **Rakesh Mohanty** and Sudhansu Bala Das. A Proposed What-Why-How (WWH) Learning Model for Students and Strengthening Learning Skills Through Computational Thinking, *AISC, Springer*, Vol. 719, 135-141, 2017.
- **Rakesh Mohanty and** Pankhuri Kiran.. New results on next fit and first fit on-line algorithms for square and rectangle packing. *IEEE Xplore, ICACCI 2017: 2201-2207*.
- Debasis Dwibedy and **Rakesh Mohanty**. A New Fairness Model Based on Users Objective for Multi-user Multi-processor Online Scheduling Problem, *Lecture Notes in Electrical Engineering (LNEE)*, *Springer, ADCOM*, 869, 453-465, 2020.
- **Rakesh Mohanty**, Tirtharaj Dash, Biswadeep Khan, Shiba Prasad Dash. An Experimental Study of a Novel Move-to-Front-or-Middle (MFM) List Update Algorithm, *Lecture Notes in Computer Science (LNCS)*, *Springer-Verlag*, ICAA, 8321, 187-197, 2014
- **Rakesh Mohanty** and N.S. Narayanswamy, Online Algorithms for Self-Organizing Sequential Search - A Survey. *Electronic Colloquium of Computational Complexity, TR09*, 2009.

TEACHING AND PROFESSIONAL EXPERIENCE (24+ years)

- **Professor [CAS]** is due since May 2018 at CSE, VSSUT Burla with retrospective effect.
- **Associate Professor** in Dept. of Computer Science & Engineering, Veer Surendra Sai University of Technology(formerly UCE Burla) from May 2015. [**7.5 years**]
- **Reader** in Dept. of Computer Science & Engineering, Veer Surendra Sai University of Technology(formerly UCE Burla) from July 2014 to May 2015. [**0.8 years**]
- **Asst Professor** in Dept. of Computer Science & Engineering, Veer Surendra Sai University of Technology(formerly UCE Burla) from January 2006 to July 2014.[**8.5 years**]
- **Lecturer** in Dept. of Computer Science & Engineering, Veer Surendra Sai University of Technology(formerly UCE Burla) from September 2001 to January 2006.[**4. 3 years**]
- **Teaching Faculty** in Dept. of Computer Science & Engineering , University College of Engineering , Burla from July 1998 to May 2000. [**1.8 years**]
- **Teaching Assistant (TA)** in Department of Computer Science & Engineering, I.I.T. Madras from August 2005 to July 2008.[**3 years**]

VOLUNTARY AND CONSULTANCY SERVICES [HONORARY]

- Education and Research Consultant at MIT Square, London, UK since July 2022.
- Mentor-Advisor at Bloom Riddhi Siddhi, Bengaluru, India, Digital Start Up since October 2021.
- Head, Partnerships and Academic Collaboration, Kalinga Kusum Foundation, Bhubaneswar, India since December 2008.
- Senior Vice President at Kreyon Systems Pvt Ltd, Jabalpur, India since January 2011.
- Education Mentor at Peoples Foundation for Scientific, Socio Economic Development since January 2021.

PROFESSIONAL MEMBERSHIP

- Member of ACM, USA.
- Member, Advanced Computing and Communications Society, India
- Member of VLSI Society of India.
- Member, Block Chain Council.
- Member of International Association of Engineers, Singapore.
- Member of ACM Computer Science Teacher Association (CSTA). USA..

SCHOLARSHIPS

- Lower Primary Merit Scholarship [1984-86], 1st position in Educational District.
- Upper Primary Merit Scholarship [1986-88], 2nd position in Educational District.
- National Rural Talent Search Scholarship [1988-91], 1st Position in Educational District.
- Junior merit scholarship [1991- 93], 1st position in Balangir District.
- Merit Scholarship for 2nd topper in Computer Sc. & Engg. during B.E. 3rd year [1996 – 97].
- AICTE - QIP scholarship for PhD program at I.I.T , Madras [2005-08].

HONORS/AWRADS/RECOGNITIONS

- **Invited Guest Speaker** in Virtual International Faculty Development Program on Research Methodology and Innovation in Teaching, organized by Centre of Excellence, MIT Square, London, UK in October 2022.
- **Top 23% Teachers in Global Ranking** in 1st International Teachers Olympiad Examination 2022 (Top 04 Domains Percentile Score – **Ethics and Values: 99.99, Teachers Growth and Professional Development-96.96, Students Engagement-89.6, Learning Assessment and Data – 77.79**)
- Felicitation as *EMINENT ALUMNUS of VSSUT Burla* by Rourkela Chapter Alumni Association during Diamond Jubilee Celebration in October 2017.
- **Coach, University Teams in ACM Inter Collegiate Programming Contest of Asia Region**, sponsored by IBM, in 2016, 2015, 2014, 2013, 2012, 2001, 1999.
- **Chair, Technical Session**, “Innovative Technologies and Applications” in International Conference, ICCIDM-2014, VSSUT Burla, Odisha.
- **Best Paper Award** in Computer Science Track in International Conference, ICRAET-2012, Hyderabad, India.
- **Professor P.K. Kar Memorial Oration Award** for delivering Invited Talk in national Conference of Indian Pharmacological Society, 2013.
- "**Rashtriya Gaurav Award 2011** and Certificate of Excellence" *for Meritorious Services, Outstanding Performance and Remarkable Role* by India International Friendship Society(IIFS), Newdelhi.
- **“Asia Pacific Excellence Award”** for excellence in Education by Citizen Integration Peace Society, New Delhi in 2011.
- **Secretary and APEX Committee Member**, Odisha JEE-2010 by Govt of Odisha.
- **Certificate of Appreciation by All India Confederation of SC & ST Organization, New Delhi**, for helping down trodden society.
- Selected for "**SHIKSHA RATAN PURASKAR-2012** " *for excellence in Teaching* by India International Friendship Society(IIFS), Newdelhi.
- Nominated as **“International Professional of the Year-2012”** by International Biographical Center of Cambridge, England.
- Selected for **“Mother Teresa Excellence Award-2012”** in Teaching by “Integrated Council of Socio-Economic Progress, Kerala.

RESEARCH INTERESTS

Online Algorithms- List Update, Scheduling, Paging, Vertex and Edge Coloring, Computational Thinking based Learning, CAD VLSI - Placement, Partitioning, Rectangle packing, Digital Stress Management, Digital Entrepreneurship, Cyber Law, Human Rights Law.

RESEARCH SUPERVISION

- PhD Theses- 04 Nos (03 – Ongoing and 01 Thesis Submitted in November 2022)
- M.Tech. Dissertations -28 Nos. (03 Ongoing and 25 Graduated)
- B.Tech. Projects – 250+ Nos. (10 ongoing + 240 completed)

SPONSORED PROJECT (01)

- **Title of Project:** Strengthening Learning Skills of Students through Computational Thinking
- **Principal Investigator:** Dr. Rakesh Mohanty
- **Sponsoring Agency :** TEQIP –II, VSSUT Burla
- **Amount Sanctioned and Duration:** 0.86 lakhs (**March 2016 - August 2016**).

MAJOR FINANCIAL PROJECTS HANDLED

- Smoothly conducted Odisha JEE 2010 Examination with annual **budget of Rs12 Crores** and First Time in the history of Odisha conducted Online Counseling for Admission into Various UG and PG Technical Courses in the state for more than 50,000 applicants as General Secretary during the year 2010-2011.
- Smoothly organized the 1st Global Alumni Meet of VSSUT Burla during January 2013 with a **budget of Rs 15 Lakhs** for 4000+ participants as Secretary of Alumni Association.
- Smoothly organized the Mega Event of Diamond Jubilee Celebration of the University and 2nd Global Alumni Meet during February 2018 with a **budget of Rs 42 Lakhs** for 6000+ participants as Secretary of Diamond Jubilee Committee and Treasurer of Alumni Association.
- Smoothly organized the mega event of Golden Jubilee Valedictory Function of VSSUT Burla with a budget of **Rs 20 lakhs** with 3000+ participants during February 2009 as Secretary, Alumni Association,

WORKSHOPS/ SYMPOSIUM PARTICIPATION

- Participated in **SAT+SMT International Winter School, TIFR, Mumbai**, December 2016.
- Participated in **Microsoft Research Symposium “TechVista - 08”** on **“Computing for the Future”**, Chennai, October, 2008.
- Participated in Research Workshop on **“Computational Complexity”** held at **IMSc. Chennai**, March, 2008.
- Participated in CLIA workshop on **“Semantic Approaches to Information Management”** held at **Anna University, Chennai**, March, 2008.
- Participated in Intel-HP workshop on **“Parallel Programming”** held at **IIT, Madras**, September, 2008.
- Participated in IARCS International Conference on Foundations of Software Technology and theoretical Computer Science(FSTTCS), India International Center, New Delhi, December, 2007.
- Participated in **8th International Conference on Cryptology in India (INDOCRYPT)** held at **IIT, Madras**, December, 2007.
- Participated in International Symposium on Applied Algebra, Algebraic Algorithms and Error Correcting Codes(AAECC-17) held at **I.I.Sc. Bangalore**, December, 2007.

TEACHING

Post Graduate Courses Taught @ UCE , Burla/VSSUT Burla

- Digital Forensics (2021), Distributed Operating System(2022), Advanced Data Structures and Algorithms(2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2021, 2022), Advanced Data Base Systems(2011, 2012, 2013, 2014). Computational Complexity(2015, 2016, 2017) Microprocessors and Micro-controllers (2008), Compiler Construction(2009), RDBMS (2009), Modeling and Simulation (2009),

Under Graduate Courses Taught @ UCE , Burla

- Data Structures (2022), Computer Networks(2022), Parallel and Distributed Systems (2021), Graph Theory(2018, 2017), Modeling and Simulation (2009, 2010), Design and Analysis of Algorithms(2010, 2011, 2017, 2018), Data Structures and Programming Methodology(2002, 2004, 2005), Data and File Structures(2010, 2011, 2012, 2013, 2014), Theory of Computation (1998, 1999, 2009), Compiler Design(1999, 2002, 2003, 2004, 2009), C Programming(2001, 2003), Web Technology (2003, 2004, 2005), Data Base Management System(2000, 2002, 2010), Object

Oriented Programming in C++ (2004), Operating System (1999), Computer Graphics (1998), Advanced Microprocessors and Applications (1998), Artificial Intelligence (2000), Digital Logic Circuit (2001).

PhD @ IIT-Madras

List of Courses Credited :

- Advanced Data Structures and Algorithms, Recent Trends in Theoretical Computer Sciences, Performance Evaluation of Computer System & Networks, Network Management System, Graph Theory, Research Methodology

List of Courses Audited :

- Design and Analysis of Algorithms, Discrete Mathematics, Computer Architecture

Teaching Assistant :

- Computational Engineering (2005, 2006, 2007, 2008)

FACULTY DEVELOPMENT

Participation in Short Term Training Programs(STTP)

S.No	Title	Organization	Date
1.	Quality Enhancement of Engineering Education Through NPTEL	I.I.T. Kharagpur	18-19 January, 2011
2.	Faculty Enablement Program	Infosys, Bhubaneswar	16-20 November, 2009
3.	Insight - 2	Infosys, Bhubaneswar	14-15 September, 2009
4.	Microsoft .NET and C#	BPUT & Microsoft	20-22 November, 2008
5.	Teaching Methodologies and Pedagogy	CCE , IIT – Madras & NITTTR - Chennai	23.25 January, 2006
6.	Developing Multimedia Applications for Deployment over Internet and Mobile Devices	IIT – Madras, Chennai	20 – 24 June, 2005
7.	Bioinformatics in Genomics and Proteomics	IIT - Kharagpur	24-25 September, 2004
8.	Software Engineering	IIT - Kharagpur	14-18 June , 2004
9.	Scientific Computing with MATLAB	IIT – Kanpur	7- 11 June , 2004
10.	Data Structures in C	IBM & BPUT	January , 2003
11.	Unix Concepts and Applications	IIT –Delhi	9 – 13 December, 2002
12.	Sun Technology - Java	Infosys , Bhubaneswar	20-22 November , 2002

MISCELLANEOUS EXPERIENCES :

Current and Past Responsibilities :

- Member(Elected) of Board of Management, VSSUT Burla [2018-2021]
- HOD, Computer Science and Engineering, VSSUT Burla [2017-2018]
- Member, Academic Council, VSSUT Burla [2021-2022].
- Secretary, Diamond Jubilee Organizing Committee, VSSUT Burla, [2017-2018]
- Professor-In-Charge, University Examinations, VSSUT Burla [2015-2017]
- Professor in Charge, Central Internet Facility and Central Computing Facility, [2016-2017]
- Co-ordinator, NBA Accreditation , B.Tech. CSE Program, VSSUT, [2015-2016]
- Member, Project Monitoring Unit, RUSA, VSSUT, [2015-2018]
- Vice-President, Cultural Club, VSSUT Burla, [2016 -2017]
- Treasurer, Alumni Association, VSSUT Burla, [2016-2019]
- Member, NAAC Working Committee, 2015.
- Member, Academic Council, VSSUT Burla, [2014-2015]

- Member, DAC, CSE & IT, VSSUT Burla, December 2014 onward.
- Professor –In-Charge, Alumni House, VSSUT Burla since April 2014 –April 2016.
- Faculty Advisor, CSE Society, VSSUT Burla since July 2013
- Vice-President, Samavesh Society-2012-2013, VSSUT Burla.
- Executive Board member of Kalinga Kusum Foundation, Orissa (www.kalingakusum.org)
- Secretary, Orissa Joint Entrance Examination, 2010.
- Member, APEX Committee and e-counseling Committee, OJEE 2010
- Secretary of Alumni Association , VSSUT, Burla.
- Secretary, Association of Teachers, VSSUT Burla.
- Convener, University Web Management Committee, VSSUT Burla.
- Warden, Vasistha Hall of Residence, VSSUT Burla, 2011-2013.
- Member, Joint Placement Co-ordination Committee, VSSUT Burla.
- HOD- in- charge, Dept. of Computer Science & Engineering, VSSUT, Burla.
- Training and Placement Officer –in-charge, VSSUT, Burla.
- Faculty Advisor–Samavesh (Annual Techno-management Festival), VSSUT Burla .
- Member – Board of Studies, Conducting Board, Moderation Board of CSEA Dept., VSSUT Burla.
- Faculty in Charge – Department Library and CSEA, VSSUT, Burla.
- Faculty in Charge - Unix Laboratory and Windows Laboratory, CSEA, VSSUT, Burla.
- Secretary of Alumni Association , UCE , Burla (2003 - 05)
- Asst. Superintendent of East hostel , UCE , Burla(2001 - 03)
- Vice–president of Athletic Club , UCE , Burla (2004 - 05)
- Secretary of Teachers Association, ATUCE (2004 – 05)
- NCC Officer – CTO , Signals Platoon , 3(O) CTC , Burla (2001 – 2005)
- Member of Board of Studies of Sambalpur University for Under graduate engineering courses.(2003 - 2005)
- External Examiner of Sambalpur University for BSc Computer Science courses (2002-2005)
- Chief Examiner of Biju Patnaik University of Technology for under graduate engineering courses - Data Structures and C Programming. (2004)
- Centre Supervisor for Orissa JEE (2003, 2004)
- Member of Orissa JEE Central Counseling committee (2004 & 2005)
- Coach of college team in International Programming contest of Asia Region ACM-ICPC (1999 & 2001)
- Coach of College cricket team in East Zone Inter Technical College Cricket Tournament (1999)
- Presiding Officer in Loksabha and State Assembly Elections (2004)

Short-Term Courses/Workshops/Seminars Organized @ VSSUT(formerly UCE), Burla

- “Professional and Research Skills”, 2017, 2018.
- “Cloud Computing”, January 2016

- “Latex”, September 2017..
- “Entrepreneurial Skills,” April 2016.
- “Quality Management in Technical Education”, December 2015.
- “Careers beyond Campus”, March 2015
- “ Professional and Research Skills’, September 2014.
- “Recent Trends in Advanced Computing, May 2013.
- “Teaching and Research Skills” – January, 2010
- “Recent Trends in Software Engineering” - January, 2002
- “Right Approach to Job Searching” - November, 2003
- “ Next Generation Information Technology” – December , 2003
- “ Engineering and Managerial Skills” - October, 2004.

Invited Lectures / Talks

- “Computational Thinking”, VSSUT Burla
- “Joy of Creativity and Innovation”, VSSUT Burla
- “Online Computing”, VSSUT Burla
- “Medical Data Storage”, VSS Medical College, Burla
- “ Scope and Opportunities for Cyber Professionals ” - NICE , Balangir
- “Java Programming ” – NICE , Balangir
- “ Formal Language and Automata Theory” – GM College , Sambalpur
- “ Computer Networks and Internet Technology” – Kendriya Vidyalaya, Sambalpur
- “How to excel in Academics” - BR School , Belpahar.

XIV. ACHIEVEMENTS :

School level :

- 1st position in Balangir District in MSC Exam (1988)
- Dr. B. C. Das memorial Award for academic excellence – 1991.
- District Independence Day Award – 1991.
- Silver Jubilee Best Student Award in high school for all-round excellence in academic, sports and extracurricular activities. (1989 – 91)
- Merit Rank certificate from BSE , Orissa for securing 30th position in the state merit list in HSC Exam -1991.
- 1st Position for consecutive 3 years in the state of Orissa in Inter High School level General Knowledge competition organized by OSSTA at Barabati Stadium , Cuttack (1989, 1990, 1991)

Intermediate College level :

- 1st Position in Science Teaching competition among all intermediate, graduate and post graduate students of the Rajendra college in Annual Science Society function – 1992.
- Highest Rank holder of the college in Orissa JEE - 1994.

Graduate and Post Graduate level :

- Qualified twice in GATE (Computer Science and Engineering) – 1998 , 2001
- Selected to represent college in Sambalpur University Athletic Meet held at N.I.T. Rourkela – 1997 .
- Member of the Champion College Cricket Team in East Zone Inter Technical Cricket Tounament held at B.I. T. Mesra - 1997.
- Secured All India Rank – 4 in final merit list of J.N.U. Entrance Examination for admission to M. Tech. program in Computer Science and Technology – 2000.
- Member of the Runners–up cricket team in JNU Inter School cricket tournament – 2001.

XV. OTHER ACADEMIC AND EXTRA CURRICULAR ACTIVITIES :

- Executive Body Member – Kalinga Kusum Foundation, Orissa
- Member – Golden Jubilee Valedictory Souvenir Committee, VSSUT Burla.
- Founder – VSSUT Programming Forum.
- Provided GATE coaching for B.E. CSE students at U.C.E. Burla (2004 - 05).
- Placement Coordinator for M. Tech batch in SC & SS , JNU, NewDelhi – (2000 - 01)
- Career counseling and guidance to several fellow students and juniors for the last 15 years.
- Executive Committee Member of a rural youth forum “**Jagrutee**” in native village which organizes competitions among school children to promote rural talents.
- Organized many workshops, seminars and events in college as well as schools for benefits of the students on behalf of different associations.
- Presented invited talks on technical and personality development topics in schools and colleges.
- Won many prizes and certificates in school and college level for excellence in academic, extracurricular and sporting activities.

Rakesh Mohanty

(Rakesh Mohanty)