

CURRICULUM VITAE

Sanjeev Kumar, Ph.D.
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OBJECTIVE

Passionate Computer Science and Engineering professional having over 12 years of experience in the domain of machine learning, artificial intelligence and soft computing with strong analytical skills and comprehensive computer expertise. I believe any problem can be solved with the right technology, work-ethics, team understanding and effective communication. Aim to achieve professional excellence, challenging and rewarding position in a growing organization where my research, management and technical skills can contribute for the future developments of the organization.

Work Experience

Jul 2009-Dec 2021 (till date) **Assistant Professor (Computer Science and Engineering)**
Academic Coordinator, ICFAI Tech School
The ICFAI University, Dehradun, India

Education and Qualification

Jan 2020 **Ph.D. (Computer Science and Engineering)**
The ICFAI University, Dehradun, India
Thesis Title: Hybrid Metaheuristic Algorithms for Highly Constrained Combinatorial Optimization Problems.

July 2007-May 2009 **M.Tech. (Computer Science and Data Processing)**
Indian Institute of Technology, Kharagpur, India
Thesis Title: Soft Constraint satisfaction problems and their extensions to Hierarchy Solver

July 2005-May 2007 **M.Sc. (Mathematics)**
Indian Institute of Technology, Bombay, India
Thesis Title: Finite Element Methods

July 2001- May 2004 **Bachelor of Science (Physics, Chemistry and Mathematics),**
Guru Dronacharya Govt. College Gurugram (Haryana), Indi

April 2000- May 2001 **10+2th Science (Physics, Chemistry, Mathematics, English)**
Senior Secondary School, Tauru, Haryana, India

April 1998- May 1999 **10th Science (Science, Mathematics, English, Hindi, SS)**
Senior Secondary School, Tauru, Haryana, India

Project Completed

- Recommender Systems
- CV Selector
- Face Mask Detection
- Scheduler for University Timetabling Problem
- Shuttle Radar Topography Mission (Srtm Plot's)
- Bus Reservation System
- Modified A* Algorithm
- Review My Text (An Android App)
- University Grading System
- E-classroom
- Library Analytic Hierarchy Process (AHP)
- Curriculum designing and scheme fitting through normalized process

Teaching Interest

Undergraduate Level:

Fundamentals and professional core courses of Computer Science and engineering such as (Fundamentals of Computer, Data Structures, Design and Analysis of Algorithms, Compiler Design, Theory of Automata, Operating Systems, Database Management, Artificial Intelligence and Machine Learning, Unix, Languages: C, C++, Java, .NET C# and Python.

Post Graduate Level:

Advanced Algorithms, Soft computing techniques, Optimization Techniques, Machine Learning, Artificial Intelligence and IoT.

Research Interests

Artificial Intelligence, Machine Learning, Supply Chain Management, Combinatorial Optimization, Heuristics and Metaheuristics Algorithms, Operations Research- Scheduling and Timetabling in Industry and Education.

Administrative Responsibilities

- Academics Coordinator, ICFAI TECH SCHOOL, The ICFAI University, Dehradun.
- Research and development coordinator, ICFAI TECH SCHOOL, The ICFAI University, Dehradun.
- Head Curriculum analysis and development.
- Head of the Department, Computer Science and Engineering.
- Head Software development team ICFAI Tech School.
- NAAC- IQAC Cell Member, The ICFAI University Dehradun.
- NAAC- Criteria-5 In-Charge at University Level. 2019.
- NAAC –ICFAI Dehradun team member, 2019.
- Head Admissions planning and execution for UG and PG at The ICFAI University Dehradun 2019-2021.
- Faculty In-charge for monitoring 7 ½ months rigorous computer science engineering students internship program 2009-2020 in 70+ Top notch Industries (Schneider Electric Limited, HCL, ISRO, DRDO, NIIT Technologies, BSNL, ALT WEB, Apna infotech, Aricent Group, Central electronics LTD, CMC Noida Crezone technologies and many more).

Awards & Achievements

- IGID Outstanding Leadership award for the Best Leadership, Year 2019-20.
- Best Teacher Award, Year 2019 at The ICFAI University, Dehradun
- MHRD Fellowship 2007-2009, IIT Kharagpur.
- UGC NET (CSE), June, 2012.
- IIT GATE Entrance, AIR-252, March, 2006.
- IIT JAM Entrance, AIR-28, June, 2004.

Refereed Journal Publications

1. **Kumar Sanjeev**, Pandey Rakesh and Mohanty R P, “Algorithm for Automation of the Teacher-Course Allotment.” In International Journal of Operational Research, Inderscience. DOI: 10.1504/IJOR.2020.10036542
2. **Kumar, Sanjeev**, Ashirbad and R. P Mohanty, “A Hybrid Recommender System: Uniqueness of Choices by Using Machine Learning Technique. In: Durakbasa N.M., Gençyılmaz M.G. (eds) Digital Conversion on the Way to Industry 4.0. ISPR 2020. Lecture Notes in Mechanical Engineering. Springer, Cham. https://doi.org/10.1007/978-3-030-62784-3_1
3. **Kumar, Sanjeev**, and Rakesh Pandey. “Automated university course timetable generator.” International Journal of Industrial and Systems Engineering 36, no. 1 (2020): 1-16. DOI: 10.1504/IJISE.2020.10028374.
4. **Kumar, Sanjeev**, Rakesh P. Badoni, and P. J. Mohan. "Application of MADM Methods for Selecting the Best Private Institution for Professional Courses in Uttarakhand State, India." In Proceedings of the Second International Conference on Research in Intelligent and Computing in Engineering pp. 229–233 DOI: 10.15439/2017R123 ACSIS, Vol. 10 ISSN 2300-5963, 2017.
5. **Kumar, Sanjeev**. “Solving University Course Timetabling Problem Using AHP Method” (November 8, 2016). The IUP Journal of Computer Sciences, Vol. X, Nos. 1 & 2, January & April 2016 ISSN: 0973-9904 pp. 88-97.
6. **Kumar, Sanjeev**, Nihit Srivastava, Kunal Upadhyay, Prakash Chanchal, Sanjeev Kumar , “Institutional Timetable Scheduling System by Using Genetic Algorithm”, International Journal of Scientific Research in Computer Science Applications and Management Studies, Volume 8 Issue 5, ISSN 2319-1953.
7. Garvit Sharma, Shruti K C, **Sanjeev Kumar**, “A Smart City Development by Using Internet of Things”, International Journal of Scientific Research in Computer Science Applications and Management Studies, Volume 8 Issue 5, ISSN 2319-1953.
8. Dev Garg, Ratnesh Mishra, **Sanjeev Kumar**, “A Deep Study on IoT Eco System” , International Journal of Scientific Research in Computer Science Applications and Management Studies, Volume 8 Issue 5, ISSN 2319-1953.
9. Ashirbad Sarangi, Vardaan Jain, **Sanjeev Kumar**, “Integration of Artificial Intelligence and Human Life”, International Journal of Scientific Research in Computer Science Applications and Management Studies, Volume 8 Issue 5, ISSN 2319-1953.

10. Subhrajit Roy and **Sanjeev Kumar**, “A Smart Home Automation by Using Internet of Things at CISCO PACKET TRACER 7.2.0”, International Journal of Scientific Research in Computer Science Applications and Management Studies, Volume 8 Issue 5, ISSN 2319-1953.

Manuscripts Under Review

1. Rakesh P Badoni, **Kumar Sanjeev** and Mohanty R P, Ant colony optimization algorithm for the university course timetabling problem using events based on groupings of students, submitted to Elsevier, Feb 2021.
2. **Kumar, Sanjeev**, Ashirbad S, Rakesh P Badoni and R. P Mohanty, “Development and Validation of a Hybridized Algorithm involving AHP and Machine Learning for Automobile Vehicle Selection ”, **Int. J. of Operational Research** (Submitted Nov., 2021).

Conferences National and International

1. Paper presented Paper “A Hybrid Recommender System: Uniqueness of Choices by Using Machine Learning Technique”, ‘In International Symposium for Production Research 2020 at Turkey, September, 2020.
2. Paper presented Paper “A Metaheuristic Approach to Solve Course Timetabling Problem in 3rd National conference on Recent Innovations in Emerging Technology & Science, sponsored by Uttarakhand State Education & Research Centre Dehradun, August 9-10, 2019 at JBIT, Dehradun. INDIA.
3. Paper presented Paper, “Institutional Timetable Scheduling System by Using Genetic Algorithm”, in All India Seminar on Cyber Physical Systems for Digital India & Sustainable Development held between 28-29, March 2019 at IEI Dehradun, INDIA.
4. Paper presented Paper, “A Smart City Development by Using Internet of Things”, in All India Seminar on Cyber Physical Systems for Digital India & Sustainable Development held between 28-29, March 2019 at IEI Dehradun, INDIA.
5. Paper presented Paper, “A Deep Study on IoT Eco System” , in All India Seminar on Cyber Physical Systems for Digital India & Sustainable Development held between 28-29, March 2019 at IEI Dehradun, INDIA.
6. Paper presented Paper, “Integration of Airtificial Intellegence and Human Life”, in All India Seminar on Cyber Physical Systems for Digital India & Sustainable Development held between 28-29 March, 2019 at IEI Dehradun, INDIA.
7. Paper presented Paper, “A Smart Home Automation by Using Internet of Things at CISCO PACKET TRACER 7.2.0”, in All India Seminar on Cyber Physical Systems for Digital India & Sustainable Development held between 28-29, March 2019 at IEI Dehradun, INDIA.

8. Paper presented Paper, “Automated University course Timetable Generator” in Diamond Jubilee national Convention of IIIE & International conference on Role of Industrial Engineering in Industry 4.0 Paradigm, ICIEIND 2018 held between 27th – 30th Sept. 2018 at Siksha ‘O’ Anusandhan (Deemed to be University), Bhubaneswar, INDIA.
9. Paper presented Paper, “A Heuristic Approach To Solve Course Assignment Problem” in 2nd National conference on Recent Innovations in Emerging Technology & Science, sponsored by Uttarakhand State Education & Research Centre Dehradun, April 6-7, 2018 at JBIT , Dehradun. INDIA.
10. Paper presented Paper, “Best Fit Technique To Schedule Class Room In University Course Timetabling Problem” in 2nd National conference on Recent Innovations in Emerging Technology & Science, sponsored by Uttarakhand State Education & Research Centre Dehradun, April 6-7, 2018 at JBIT , Dehradun. INDIA.
11. Paper presented Paper, “ Data Mining & Fraud Detection: Two Face Of Same Coin” in 2nd National conference on Recent Innovations in Emerging Technology & Science, sponsored by Uttarakhand State Education & Research Centre Dehradun, April 6-7, 2018 at JBIT , Dehradun. INDIA.
12. Paper presented Paper, “Application Of MADM Methods For Selecting The Best Private Institution For Professional Courses In Uttarakhand State Of India” in RICE 24-26, March -2017 at Institute of Technology Gopeshwar, Uttarakhand. INDIA.
13. Paper presented Paper, “Heuristic Approach For Solving Travelling Salesman Problem” in National conference on Recent Innovations in Emerging Technology & Science, sponsored by Uttarakhand State Council for Science & Technology, March 3-4, 2017 at JBIT , Dehradun. INDIA.
14. Paper presented Paper, “ Nature Base Computing Algorithms: A New Paradigm Of Emerging Technologies” in National conference on Recent Innovations in Emerging Technology & Science, sponsored by Uttarakhand State Council for Science & Technology, March 3-4, 2017 at JBIT , Dehradun. INDIA.
15. Paper presented Paper, “Exploration And Exploitation Based Metaheuristic Algorithm For University Course Timetabling Problems”, in National conference on advances in Mathematical science (NCAMS-2016) Dec. 21-22, 2016 at Netaji Subhash Chander Bose Memorial Govt. College, Hamirpur, Himachal Pradesh. INDIA.
16. Paper presented Paper, “Application of Constraint Satisfaction Method for the Control of Mass Gathering in Mahakumbha Mela”, in 10th Uttarakhand State Science & Technology Congress 2015-16, on 10-12 February, 2016 at Dehradun. INDIA.
17. Paper presented Paper, “A Technique to Solve University Course Timetabling Problem by Using AHP Method” in 4th International Conference on Business Intelligence, Analytics and Knowledge Management (BIAKM – 2015) at IFHE, The ICFAI University, and Hyderabad on 17th and 18th December, 2015. INDIA.

18. Paper presented “Who’s Most To Blame for Global Warming” in 2nd biennial national conference of Indian Academy of Science & Nature (IASN), Agra on 9th March, 2013. “Global Warming – health hazard & mitigation strategy”. Agra, INDIA.
19. Paper presented, “The Kind Of Education System Which Returns Peace In Educational Environment” in National seminar on education for peace and development 05th & 06th Apr. 2014, organized by Faculty of Education, Anjali Institute of Management & Science Agra. INDIA

Workshop and Technical Courses

1. Attended 6 days FDP “Productivity Tools for Teaching Enhancement” organized by IBS, ICFAI Dehradun September 06-11, 2021.
2. Organized an online webinar on “How to do Research?”, Speaker Professor R P Mohanty, Nov 6, 2020.
3. Organized an online webinar on “Data Science and AI scope in Industry”, panellist with Dr. Kumar Rahul Data Scientist from Amazon India on 21st May 2020.
4. Organized an online webinar on “Corporate culture during Covid-19”, panellist with Two of ICFAI TECH SCHOOL Alumni on 16th May 2020.
5. Participated in Online Secure Coding Workshop conducted by Cyber security Centre of Excellence, DSCI, 22-27 April, 2020.
6. Participated in Faculty Development program on “Soft Computing techniques using MATLAB through ICT” by National Institute of technical teachers training and research Chandigarh held at ICFAI University, Dehradun (05-09 March. 2018).
7. Participated in the National Science Day Exhibition held on 28th Feb. 2018, at Raj Bhawan, Dehradun, Uttarakhand.
8. Participated in Faculty Development program on “Open Source Technologies” by National Institute of technical teachers training and research Chandigarh held at ICFAI University, Dehradun (11-17 Nov. 2017).
9. Participated in Faculty Development program on “Cloud Computing through ICT” by National Institute of technical teachers training and research Chandigarh held at ICFAI University, Dehradun (23-27 Oct. 2017).
10. Symposium: Participated in Symposium on Machine Learning in NATURAL LANGUAGE PROCESSING, COMPUTER VISION and SUPPORT VECTOR MACHINES was held at University Of Petroleum and Energy Studies on the 5th of November, 2016.
11. Workshop organized and delivered on “How to write efficient code in C-language” Computer Science & engineering, faculty of science & technology, The ICFAI University Dehradun on 12, March, 2016.

12. Workshop on Latex, member of organizing team, Computer Science & engineering, faculty of science & technology, The ICFAI University Dehradun on 21-22 December, 2015.
13. Workshop: Participated (ISTE STTP) Introduction to Design of Algorithms sponsored by MHRD of India delivered by IIT Kharagpur of Two week's starts by 25th May 2015 at University of Petroleum and Energy Studies. Qualified exam with grade "A".
14. Workshop at IFHE Hyderabad: Participated in the Faculty Development Program, held at The Icfai foundation of Higher Education (IFHE), The ICFAI University Hyderabad, from 29th June 2015 to 3rd July 2015.
15. Workshop: Participated in the workshop on VLSI & Embedded System at Faculty of Science & Technology, The ICFAI UNIVERSITY Dehradun, 22-24 April 2011.
16. Workshop at IGNOU: Participated in the training Program on Development of Online Courses, held at IGNOU University, Delhi from March 16-18, 2011. Organized by, Inter University Consortium for Technology- Enabled Flexible Education & Development (IUC-TEFED) IGNOU, Maidan Garhi, New Delhi.
17. Workshop at IFHE Hyderabad: Participated in the training Program on Development of self-learning material (SLM), held at The Icfai foundation of Higher Education (IFHE), The ICFAI University Hyderabad, from oct-4-5, 2010.
18. Summer Workshop: Participate in the workshop on VLSI Design at Faculty of Science & Technology, The ICFAI UNIVERSITY Dehradun, 22-24 MAY 2010.
19. Summer Workshop: Instruction School on Computational PDE's held at the Department of Mathematics, IIT Bombay during June, 05 - 24th, 2005.
20. CEP Certificate Course at IITB: Certificate Course on Advanced Programming in C++. Course Outline: Object Oriented Programming: Class, Inheritance and polymorphism.
Data Structures: Arrays, Linked lists, Stacks, Hash tables, Queues and Binary Trees.

Technical Skills

1. **Computer Languages:** C, C++ C# .NET, JAVA, Python, PHP & MySQL.
2. **Tools:** Matlab, XAMPP.
3. **Operating Systems:** Windows, Linux/Unix.
4. **Documentation skill:** Latex.

Strengths

1. Effective team leader
2. Ability to multitask
3. Professional and good team player.
4. Adaptability and Quick learner skills
5. Strong verbal and written skills in (English & Hindi)

Languages

1. **English: Full professional proficiency**
2. **Hindi: Full professional proficiency**

Personal Details

Date of Birth:	16 th Oct. 1982
Marital Status:	Married
Sex:	Male
Nationality:	Indian
Father's Name:	Shri Ram Dayal
Mother's Name:	Mrs. Mohan Devi
Wife's Name:	Priyanka
Languages:	Hindi and English

REFERENCES

Professor R. P. Mohanty Chief Consultant & Former Vice Chancellor SOA University, Bhubaneswar, Odisha, Odisha 751030, India.	Phone: +91-7045354120 E-mail: rpmohanty@gmail.com
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Rakesh Prasad Badoni, Ph.D. Assistant Professor Computer Science and Engineering Mahindra University Hyderabad- 500043, INDIA.	Phone: +91 8218440539 E-mail: rakeshbadoni@gmail.com
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Dr. Suresh Kumar Scientist-F, Joint-Director DMSRDE, DRDO Kanpur, India	Phone: +91-9956001199 E-mail: suresh.tanwar1@gmail.com
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DECLARATION

I hereby declare that the information given above is true to the best of my knowledge

Dr. Sanjeev Kumar