

ACADEMICS

Ph.D. Department of Mechanical Engineering, National Institute of Technology Rourkela (Orissa), India.

M. Tech. (CAD/CAM) Department of Mechanical Engineering, MNREC (Now MNIT) Allahabad (U.P.), India.

B.E. (Mechanical) Department of Mechanical Engineering, Govt. Engineering College, R.D.V.V. Jabalpur (M.P.), India.

POSITIONS HELD

Professor & Head: Working from 18th June 2013, Department of Industrial & Production Engineering, Institute of Technology, G.G.V. (Central University), Bilaspur (C.G.).

Associate Professor: 1 years 2 months (from 23rd April 2012 to 17th June 2013), Department of Industrial & Production Engineering, Institute of Technology, G.G.V. (Central University), Bilaspur (C.G.).

Associate Professor: 03 Year 02 months (from Feb. 2009 to March 2012), Department of Mechanical Engineering, Government Engineering College Bilaspur (C.G.).

Senior Lecturer: 4 years 9 months (from April 2002 to Jan. 2009), Department of Mechanical Engineering, Government Engineering College Bilaspur (C.G.).

Lecturer: 4 years 9 months (from July 1997 to March 2002), Department of Mechanical Engineering, Government Engineering College Bilaspur (C.G.).

Lecture & Head: 1 year 3 months (from March 1996 to Jun 1997), Department of Refrigeration and Air-conditioning System, Government Polytechnic Khandwa (M.P.).

PROFESSIONAL ACTIVITIES

Editorial-board Membership: 1. International Journal of Applied Artificial Intelligent in Engineering System (IJAAIES).
2. International Journal of Artificial Intelligence and Computational Research (IJAICR).

Reviewer of International Journals: 1. Robotics and Autonomous Systems (Elsevier).
2. International Journal of System Science (Taylor & Francis).
3. Journal of Intelligent & Robotics System (Springer).

PROJECTS ON GOING

Major Research Project (U.G.C.): Path analysis and optimization of mobile robot for complex environment.

RESEARCH SCHOLAR

M.Tech.: Completed -04, Registered -04.

RESEARCH PUBLICATIONS

Inter-National Journal

1. **Singh, M.K.,** Parhi, D.R., “Fuzzy controller for path analysis and planning of mobile robot”, **International Journal of Robotics and Automation**, ACTA Press, accepted.
2. **Singh M.K.,** Parhi D.R., Mishra D.K., Singh M.P., “Intelligent controller for mobile robot based on heuristic rule base network” **Advanced Materials Research**, Vols. 403-408, 2012, 4777-4785.
3. **Singh, M.K.,** Parhi, D.R., “Path optimisation of mobile robot using artificial neural network controller”, **International Journal of System Science**, Taylor & Francis, 1464-5319, Volume 42, Issue 1, 2011, 107 – 120.
4. Parhi, D.R., **Singh, M.K.,** “Heuristic rule base hybrid neural network for navigation of mobile robot”, **Journal of Engineering Manufacture Part B**, IMechE, Volume 224, No. 7, 2010, 1103-1118.

5. Parhi, D.R., **Singh, M.K.**, “Navigational path analysis of mobile robots using an adaptive neuro-fuzzy inference system controller in a dynamic environment”, **Journal of Mechanical Engineering Science Part C**, IMechE, Volume 224, No. 6, 2010, 1369-1381.
6. Parhi, D.R., **Singh, M.K.**, “Real time navigational control of mobile robots using artificial neural network”, **Journal of Mechanical Engineering Science Part C**, I MechE, Volume 223, No. 7, 2009, 1713-1725.
7. Parhi, D.R., **Singh, M.K.**, “Various strategies of navigation of mobile robot: A review”, **International Journal of Automation and Control**, Inderscience, Volume 3, No.2/3, 2009, 114-134.
8. Parhi, D.R., **Singh, M.K.**, “Intelligent fuzzy interface technique for controller of mobile robot”, **Journal of Mechanical Engineering Science Part C**, IMechE, Volume 222, No. 11, 2008, 2281-2292.

Paper Presented/Published in Inter-National Conferences

1. **Singh M.K.**, Parhi D.R., Mishra D.K., Singh M.P., “Intelligent controller for mobile robot based on heuristic rule base network” IEEE International Conference on Control, Robotics and Cybernetics (ICRC 2011), March 19-20, 2011, New Delhi, India.
2. Pothal J.K., Parhi D.R., **Singh M.K.**, Navigation of multiple mobile robot using swarm intelligence”, IEEE International Conference on BECA2009, December 11-12, 2009, ITER Bhubneshwar, India.
3. **Singh M.K.**, Parhi D.R., Pothal J. K., ANFIS approach for navigation of mobile robots”, IEEE International Conference on ARTCom2009, October 27–28, 2009, Kerala, India.
4. **Singh M.K.**, Parhi D.R., “Intelligent Neuro-controller for navigation of mobile robot” International Conference on ICAC3’09, January 23–24, 2009, Mumbai, India.
5. **Singh M.K.**, Kasyap S.K., Parhi D.R., Singh B.K., “Optimisation of mine support parameter using neural network approach”, International Conference on ICMAG-08, December 6-12,2008, Goa (IIT Mumbai), India.
6. **Singh M.K.**, Bhowmik S., Parhi D.R., Kasyap S.K., “Intelligent controller for autonomous mobile robot”, International Conference on ICMAG-08, December 6-12,2008, Goa (IIT Mumbai), India.
7. **Singh M.K.**, Parhi D.R., Bhowmik,S., Singh P.K.; “Design of fuzzy controller for path analysis and planning of autonomous mobile robot”, International Conference on ICSCIS-07, December 27-29, 2007, JEC Jabalpur, India.
8. **Singh M.K.**, Parhi D.R., Bhowmik,S., Kasyap S.K.; “Fuzzy logic controller for autonomous mobile robot”, International Conference on RTIME-07, October 5-6, 2007, UCE Ujjain, India.
9. Bhowmik S., Subudhi B.D., Parhi D.R., **Singh M.K.**, “Swarming of multiple mobile robots for searching operation using ACO”, International Conference on ICSCIS-07, December 27-29, 2007, JEC Jabalpur, India.
10. Bhowmik S., Parhi D.R., Subudhi B.D., **Singh M.K.**, “Formation control of multiple mobile robots using fuzzy logic approach”, International Conference on ICSCIS-07, December 27-29, 2007, JEC Jabalpur, India.
11. Bhowmik S., **Singh M.K.**, “Design of intelligent control systems for autonomous mobile robot navigation using soft computing”, GE global Conference on DREAMS-07, March 11, 2007, Bangalore, India.
12. Bhowmik S., Parhi D.R., Subudhi B., **Singh M.K.**, “Design of intelligent controllers for mobile robot navigation: A review”, International Conference on ETEE07, January12-14, 2007, Science City Kolkata, India.

Paper Presented/Published in National Conferences

1. Tiwari V., **Singh M.K.**, Tiwari P., “Sliding Mode Control Enhanced by Fuzzy Algorithm for Trajectory Tracking of Robots: A Review”, National Conference on Global Innovations For Technological Development in Mechanical Engineering & Mechatronics Engineering, April12 -13, 2013, Durg, India. ISBN: 978-81-923288-1-2.
2. Borkar K.K., and **Singh M.K.**, "Design of Intelligent Controllers for Path Analysis and Motion Planning of Wheeled Mobile Robot: a survey", National Conference on Global Innovations For Technological Development in Mechanical Engineering & Mechatronics Engineering, April12 -13, 2013, Durg, India. ISBN: 978-81-923288-1-2.
3. Tiwari P., **Singh M.K.**, Tiwari V., “Tool Path Generation for Bèzier Patches for Constant Scallop Height: A Review”, National Conference on Global Innovations For Technological Development in Mechanical Engineering & Mechatronics Engineering, April12 -13, 2013, Durg, India. ISBN: 978-81-923288-1-2.

4. **Singh M.K.**, Kumar S., Mahto A.L., “Evolution of CIM architecture for small to medium enterprises: A review”, National Conference on NCMSTA'08 November 13-14, 2008, NIT, Hamirpur, Himachal Pradesh, India.
5. **Singh M.K.**, Parhi D.R., “Design of intelligent controller for mobile robot using soft computing,” National Conference on NCMSTA'08 November 13-14, 2008, NIT, Hamirpur, Himachal Pradesh, India.
6. **Singh M.K.**, Parhi D.R.K., Bhowmik S. Kasyap S.K.; “Navigation of mobile robot: Fuzzy logic approach” Proceedings RTMMR-07, 22nd National Convention of Production Engineers & National Conference, 2-3 Jun 2007, Institution of Engineers(India), Jabalpur, India.
7. **Singh M.K.**, Parhi D.R., Bhowmik S., Kasyap S.K.; “Navigation of mobile robot using fuzzy logic” Geomintech symposium on ENTMS-07, May 11-12,2007, Bhubneshwar, India.
8. **Singh M.K.**, Parhi D.R., Bhowmik S.; “Navigational path analysis of mobile robot in various environments: A survey”, National Conference on ATENM-07, January 23-24, 2007, BIT Mesra, India.
9. **Singh M.K.**, Parhi D.R., Bhowmik S.; “Path analysis of mobile robot using fuzzy logic”, National Conference on TSDPS-07, January 6-7, 2007, IT GGDU Bilaspur, India.

EXPERT LECTURE DELIVERED IN VARIOUS COURSES

- Delivered Key-note speech on “Emerging Trends in Science and Technology” in Workshop, held at Rowatpura Institute of Technology and Management Raipur (C.G.), India, (Dec., 2009).
- Delivered Expert lecture on “Design of Fuzzy logic Controller for Mobile Robots” in Short term course Mechatronics and Robotics held at National Institute of Technology Hamirpur (H.P.), India, (July, 2008).
- Delivered Expert lecture on “Auto CAD Level I & II” in Continuing Education Program for SAIL Employee held at National Institute of Technology Rourkela (Orissa), India, (Aug., 2006).

OTHER ACTIVITIES

- Exam Superintendent, Institute of Technology, GGV, Bilaspur(C.G.).
- Coordinator, AICTE approval of Institute of Technology, GGV, Bilaspur(C.G.).
- Coordinator, Garden development, Institute of Technology, GGV, Bilaspur(C.G.).
- Coordinator, SAC, Institute of Technology, GGV, Bilaspur(C.G.).

POINTS OF INTEREST

- ❖ **Relevant short term refresher course completed:** 21 weeks.
- ❖ **NCC:** Passed “A” certificate and attended one NCC Camp.
- ❖ **Sports:** Played IIIrd U.P. LTA State **Lawn Tennis** Tournament quarter final level. Played **Cricket** at college level. Enjoy playing Table Tennis, Football, Chess, Carom board, Badminton etc.

All the information given above is correct to best of my knowledge and belief.

(Mukesh Kumar Singh)

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