

Sandeep H Wankhade



BE (Prod. Engg), ME (Manufacturing Tech.), PhD (Dissertation submitted)

Experience

Teaching: 21 Years

Industry: 1 Year

Area of Research

- Hybrid EDM
- TRIZ (Theory of Inventive Problem Solving)

Research Publications:

1. "Abrasive Assisted Electrical Discharge machining: An innovative hybrid approach" in International Conference on Materials, Manufacturing and Design Processing (iCMMD-2016), on Dec 21, 2016 at Babasaheb Ambedkar Technological University (BATU), Lonere, Maharashtra. The same paper is published by Atlantis Press in ICCASP/ICMMD-2016, Advances in Intelligent Systems Research. Vol. 137, Pp. 290-297. 2017.
2. "Performance parameter optimization of newly developed Hybrid process: Abrasive Assisted Electrical Discharge machining" in 6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016), Dec 16-18, 2016 at College of Engineering, Pune.
3. "Study of the Productivity and Surface Quality of Hybrid EDM". Journal of Institution of Engineers (India): Series C, 97(1), 71-76. DOI 10.1007/s40032-015-0188-7
4. A Case Study on 'Solving a Social Problem - Using TRIZ' at Two days International Conference on "Inspiring Innovation Excellence – InnovEx Asia 2015" at Marriot Hotel, Bengaluru on 14 – 15 Sep, 2015.
5. "Study of Hybrid machining of Electrical Discharge and Abrasive Jet machining" at International Colloquium on Materials, Manufacturing and Metrology, Organized by Mechanical Engineering Department, IIT Madras, Chennai. Aug 08-09,2014
6. "Development of Material Strategy: A Case Study" at International Conference of Advances in Mechanical Engineering, Organized by Department of Mechanical Engg., Amrutvahini College of Engg. Sangamner, MS. Mar 12-14, 2012.
7. "Productivity Improvement through Automation of Coolant Filling Unit". Proc. of the National Conference on Recent Trends in Mechanical Engineering, RTME 2010, MET's Institute of Engg, Bhujbal Knowledge City, Nashik – 422 003, MS, India.
8. "Enhancement of the Productivity by streamlining the manufacturing Process of Pears soaps" at National Conference on „Emerging Trends in Mechanical Engineering" (e-TIME 2004), Nagpur. Feb 5–6, 2004.
9. "Critical Analysis of Grindability of Titanium Alloy (Ti-6al-4v) by Conventional Wheels" at National Conference on Emerging Trends in Mechanical Engineering, (e-TIME 2004), Nagpur. Feb 5–6, 2004.

10. "Expert system approach for implementation planning and financial justification of robotic system: A case study" at International Conference on CAD, CAM, Robotics and Autonomous factories going to held at Indian Institute of Technology, New Delhi. Aug. 8-10, 2003.
11. "Gandhian Thoughts" in Seventh State level ISTE Convention (Maharashtra-Goa Section), at S.S.G.M. College of Engg., Shegaon, MS. Dec. 21-22, 2002
12. "Improving the Productivity by automatic feeding mechanism: An experience at HLL, Khamgaon" Extended Proceedings of Industrial problems in machines and mechanisms (IPRoMM 2000) at Priyadarshini College of Engineering and Architecture, Nagpur, MS. Feb 2000.

Sessions delivered:

1. 'Welding' for Students of Steam Engineering Course conducted by Forbes Marshall on Jan 24, 2017 at Kasarwadi Plant, Pune.
2. 'Systematic Innovation' for Faculty and 'Systematic Innovation and TRIZ: Theory of Inventive Problem Solving' for Final Year Students of Aeronautical Engineering during on Apr 20-21, 2016 at Priyadarshini College of Engineering, Nagpur, Maharashtra.
3. 'TRIZ' at "World Class Manufacturing: A strategic Perspective" on Jun 17, 2016 at College of Engineering Pune (COEP), Pune.
4. Half day session on 'TRIZ Awareness' for Managers on Aug 3, 2016 at Vishay Components India Pvt. Ltd. Loni, Pune.
5. 'TRIZ Session on Project Selection and execution" for Final Year Students of Production Engineering on Aug 8, 2016 at SGGIS Institute of Technology, Nanded, Maharashtra.
6. 'Welding' for Students of Steam Engineering Course conducted by Forbes Marshall on Feb 11, 2016 at Kasarwadi Plant, Pune.

Programs organized:

1. A one day national level session on "FACE to Face Interactive session with Dr Sergei Ikoenko". Sergie Ikoenko is a Professor at MIT, USA, TRIZ Level 5 Master and President of the International TRIZ Association (MATRIZ) on Aug 13, 2016, attended by 22 Industrial professionals at AISSMS College of Engineering, Pune.
2. "Inauguration of AISSMS TRIZ Level - 1 Certification Training Programme" through Dr Sergie Ikoenko, a Professor at MIT, USA, TRIZ Level 5 Master and President of the International TRIZ Association (MATRIZ) on Aug 13, 2016 at AISSMS College of Engineering, Pune.
3. Initiated AISSMSCOE TRIZ Chapter at the college level in collaboration with TRIZ Association of Asia and International Association of TRIZ (MATRIZ), Russia. Under this chapter a TRIZ Level - 1 certification training Programme is planned. Under this lectures are conducted on "Awareness of TRIZ" for all Third and Final Year Students of AISSMSCOE.
4. A one day session on "Interactive session on 'Culture for Innovation' By Dr. Hans-Juergen Lesser (CEO Centre of Expertise, ARaymond) and Mr Manish Padhariya (MD, ARaymond, Pune)", on Aug 24, 2016 at AISSMS College of Engineering, Pune.

Workshops/Seminars/Conferences attended;

1. Attended an International conference "Innovex 2016" and Workshop on "Alternative System Design – Developing New Products out of Old Ones" and "Application of TRIZ in Industries" during Nov 23 – 27, 2016 at Hotel Crowne Plaza, Bangalore.
2. Attended a one day "Orientation Lecture for AVISHKAR 2016" on Sep 28, 2016, organized by AISSMS College of Engineering, Pune in association with BCUD, Savitribai Phule Pune University, Pune.

3. Attended a one week STTP on “World Class Manufacturing: A strategic Perspective” during Jun 13 – 17, 2016 at College of Engineering Pune (COEP), Pune.
4. Attended One Week National level Faculty Development Programme on “Micro-Manufacturing” organized by IIT, Guwahati, Assam.
5. Attended One Week National level Faculty Development Programme on “Advances in Product Design and Surface Engineering APDSE-2013” organized by SCOE, Pune & Indian Institute of Metals, Pune Chapter. Nov 18 – 22, 2013.
6. Attended One day workshop on Industrial Applications of Statistical Software in quality management and reliability engineering at I²IT, Pune. Oct 13 2011.
7. Attended AICTE-ISTE Two Week winter short-term training school on “MEMS and
8. Mechatronics” at National Institute of Technology, Surathkal, Karnataka. Nov 22 – Dec 04 2004.
9. Attended AICTE-ISTE One Week winter school on “Design for Manufacturability and Assembly” at S.S.G.M. College of Engineering, Shegaon, MS. Oct 25-30 2004.
10. Attended AICTE-ISTE Two Weeks summer school on “Database Management Systems and its Industrial Applications” at College of Engineering, Badnera, Dist. Amravati, MS. Mar 31 – Apr 12, 2004.
11. Attended AICTE-ISTE self-financed One Week winter school on “Mechatronics” at Vidyawardhini College of Engineering, Vasai Road, Distt. Thane, MS Dec 29 – Jan 2, 2004.
12. Attended AICTE-ISTE sponsored Two Weeks summer school on “Computer Application and Modern Techniques in Manufacturing Processes” at Anuradha College of Engineering, Chikhli, MS. Mar 24 – Apr 5, 2003.
13. Attended and Participated in Seventh State Level ISTE Convention of Maharashtra-Goa Section at SSGM College of Engineering, Shegaon, MS. Dec. 21-22, 2002.
14. Participated in a two-day national workshop on „MATLAB for Engineering Applications” organized by SSGM College of Engineering, Shegaon. Feb. 23-24, 2002.
15. Participated in the exploratory seminar on „Accreditation & Autonomy: Purpose, Process, and Prospect” at SSGM College of Engineering, Shegaon. Nov 11-12, 2000
16. Participated in a pre-conference school on Mechatronics, Industrial problems in machines and mechanisms- Workshop (IPRoMM 2000) at Priyadarshini College of Engineering and Architecture, Nagpur (M.S.) on behalf of Association of Machines and Mechanisms (AMM). Jan 17-18, 2001.
17. Undertaken a one week training program on “CNC machines and its programming” at HMT Limited, Ajmer, Rajasthan.

Professional memberships:

- Indian Society for technical Education
- Institute of Engineers(India)
- TRIZ Association of India

Responsibilities shouldered:

- Member, Academic Development Cell
- Co-ordinator, Quality Assurance Committee
- Faculty Advisor, AISSMSCOE TRIZ Chapter
- Coordinator, Quality Assurance Cell
- Coordinator, Department R&D Cell

➤ Worked as Coordinator, Production Engineering Department

Achievements/ Awards and any other information:

1. Won Second Prize at Teacher Level, under Engineering & Technology in the 11th Maharashtra State Inter-University Research Convention AVISHKAR 2016 at SRTM University, Nanded, Maharashtra, during 27-29 Jan 2017.
2. Certified as TRIZ Level – 1 & 2 from International Association of TRIZ (MATRIZ), Russia. TRIZ is Russian acronym of Theory of Inventive Problem Solving.
3. Received a grant Rs 1.0 Lakh for organizing a 2 day State level seminar on 'Mechatronics – An Industrial Application Approach' Quality Improvement in Industries' from Board of College and University Development, Savitribai Phule Pune University, Pune and was conducted on Mar 03-04, 2016 at AISSMSCOE, Pune.
4. Received an approval of Rs 1.9 Lakh as Research grant for "Optimization of Hybrid Machining Process of Rotary Electro Discharge Machining with Abrasive media" by Board of College and University Development, Savitribai Phule Pune University, Pune.
5. Received a grant Rs 1.0 Lakh for organizing a 2 day State level seminar on 'Zero Defect – Quality Improvement in Industries' from Board of College and University Development, Savitribai Phule Pune University, Pune and was conducted on Mar 03-04, 2017 at AISSMSCOE, Pune.
6. Received a grant of Rs. 1.25 Lakh from BCUD scheme of University of Pune as Principal Investigator, titled 'Evaluation & study of process parameters of Hybridization of AJM and EDM' in the year 2008-09.
7. Received a grant of Rs.1 Lakh from BCUD scheme of University of Pune as Co- Investigator, titled 'Correlation of field life degradation with reliability prediction for Mechatronics devices' in the year 2007-08.
8. Conceived, Designed and Developed an 'Automatic Billet Cutting cum Chamfering Machine' for a leading soap manufacturing company in India and also obtained a Provisional Patent of the Mechanism.
9. Invited as an Academic Expert for Panel discussion on Innovation in Universities: India (vs) Globe at InnovEx 2015, an International Conference on "Inspiring Innovation Excellence – InnovEx Asia 2015" at Marriot Hotel, Bengaluru on 14 – 15 Sep, 2015.

