Faculty Profile

1. Name: Dr. Surya Narayan Panda

2. Department: Production & Industrial Engineering

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5. Office Address: Department of Production & Industrial Engineering, B.I.T Sindri, Dhanbad, Jharkhand-828123

6. Qualification:



| S. No | Degree(UG, PG, PhD) | Specialization | Institute |
|-------|---------------------|---------------------------------------|--|
| 1 | B. tech | Manufacturing Science and engineering | Veer Surendra Sai University of Technology, Burla, Odisha |
| 2 | M. Tech | Machine Design and Analysis | Veer Surendra Sai University of Technology, Burla, Odisha |
| 3 | Ph.D | Production Engineering | Veer Surendra Sai University of Technology, Burla, Odisha |

- 7. Area of Specialization: Design of Machine Element, Nontraditional Machining, Welding, Softcomputing Method, Composite Materials
- 8. Professional Experience:

I) Teaching Experience:

| S. No | Ouganization | Designation | Period (Date) | | |
|--------|--|------------------------------|---------------|------------|--|
| 5. 110 | Organization | Designation | From | To | |
| 01 | Bit, Sindri, Dhanbad, Jharkhand | Assistant Professor- NPIU | 01/09/2018 | Till Date | |
| 02 | Govt College of Engineering, Kalahandi,Odisha | Assistant Professor(OC) | 25/07/2016 | 31/08/2/18 | |
| 03 | Centurion University of Technology And Management, Bhubaneswar | Assistant Professor | 31/07/2014 | 23/07/2016 | |

II) Industrial Experience:

| Sl. No. | Position held | Name of Organization | from | to |
|---------|-----------------|----------------------------|------------|------------|
| 01 | Senior Engineer | Bhushan Power and Steel | 02.07.2013 | 30.07.2014 |
| | | Limited, Sambalpur, Odisha | | |

9. Publications:

I) International Journal:

| Sl. No. | Title of the paper | Name of the journal in | Vol/No. | Publicat | Pages |
|---------|----------------------------|------------------------|---------|----------|-----------|
| | | which publication has | | ion Year | |
| | | been made | | | |
| 01 | Comparative Study on | Tribology | 92 | 2015 | 595-604 |
| | Optimum Design of | International | | | |
| | Rolling Element Bearing | | | | |
| 02 | A Multi-Objective | International Journal | 12 | 2018 | 1095-1108 |
| | Optimum Design Approach | on Interactive Design | | | |
| | for Rolling Element | and Manufacturing | | | |
| | Bearing | _ | | | |
| 03 | Modelling and | Journal of Advanced | 19-02 | 2020 | 343-364 |
| | Optimization of Rolling | Manufacturing | | | |
| | Process: A Multi-objective | Systems | | | |
| | approach | | | | |

II) International Conference:

| Sl.No | Authors | Conf. Title | Conf. Name | Pages(Year) |
|-------|---|--|---|-----------------------|
| 1 | A.K.Pattanaik, S.N.Panda, K.Pal, D.Mishra | A Comparative Investigation To Process Parameter Optimization For Spot Welding Using Taguchi Based Grey Relational Analysis And Metaheuristics | Icmmm2017 | 11408- 11414(2018) |
| 2 | S. N. Panda, S. Panda, D.S.Khamari | A Multi- Objective Approach To Study The Effects Of Ball Race Conformity On Optimum Design Of Rolling Element Bearing Using Metaheuristics | International Conference On Advanced Computing & Intelligent 2018 | 35–47(2020) |
| 3 | S.N.Panda,S.Panda,P.Mishra | A Multiobjective Ideal Design Of Rolling Element Bearing Using Metaheuristics | International Conference On Smart Computing And Informatics,3rd- 4th Mar 2017 | 2190-3018 (2018) |
| 4 | Mofeed Alam, M., Jha, A.K., Mukherjee, S., Panda, S., Chakraborty, S.S. | A Review On Friction Stir Welding—A Green Manufacturing Technology | Rtmmti4.0- 2020 | 869– 880(2021) |
| 5 | Pradip Kumar Sahu, Gunji Bala Murali, Bijay Kumar Khamari,Surya Narayan Panda, Bibhuti Bhusan Biswal | An Efficient Robotic Manipulator Trajectory Planning Using Modified Firefly Algorithm | Icamme-2019 | 59–66(2020) |
| 6 | Bijay Kumar Khamar,Swapan Kumar Karak, Pradip Kumar Sahu, Surya Narayan Panda, Bibhuli Bhusan Biswal | Analysis Of Different Types Of Micro Grains In Stick Welded Mild Steel Plates | Icamme-2019 | 471– 476(2020) |

| 7 | Surya Narayan Panda, Dilip Kumar Bagal, Ajit Kumar Pattanaik, Dulu Patnaik, Abhishek Barua, Siddharth Jeel, Biswajit Parida And Bibekananda Naik | Comparative Evaluation For Studying The Parametric Influences On Quality Of Electrode Using Taguchi Method Coupled With Moora, Dfa, And Topsis Method For Electrochemical Machining | Icrami-2019 | 115– 129(2020) |
|----|---|---|--|-----------------------|
| 8 | A.K.Pattanaika, S.Pradhan, S.N.Panda, D.K.Bagal, K.Pal, D.Patnaik | Effect Of Process Parameters On Friction Stir Spot Welding Using Grey Based Taguchi Methodology | Icmmm2017 | 12098- 12102(2018) |
| 9 | Soumya Ranjan Mangara, Dilip Kumar Bagal, Nirmalya Parhi, Surya Narayan Panda, Abhishek Barua, Siddharth Jeet | Experimental Study Of A Portable Plasma Arc Cutting System Using Hybrid Rsm- Nature Inspired Optimization Technique | Icfmmp-2021 | 867- 878(2022) |
| 10 | Pradip Kumar Sahu, Bijaya Kumar Khamari, Bunil Kumar Balabantaray, Bibhuti Bhusan Biswal And Surya Narayan Panda | Geodesic Approach For Trajectory Planning Of Mobile Robot Manipulators | Icame-2019 | 1521– 1531(2020) |
| 11 | Dilip Kumar Bagal, Ajit Kumar Pattanaik, Dulu Palnaik, Abhishek Barua, Siddharth Jeet And Surya Narayan Panda | Multi-Objective Optimization And Experimental Investigation Of Cnc Oxy-Fuel Gas Cutting Parameters Using Taguchi Coupled Data Envelopment Analysis | Icrami-2019 | 75–83(2020) |
| 12 | Siddharth Jeet, Abhishek Barua, Dilip Kumar Bagal, Swastik Pradhan, Surya Narayan Panda & Siba Sankar Mahapatra | Parametric Appraisal Of Plastic Injection Moulding For Low Density Polyethylene (Ldpe): A Novel Taguchi Based Honey Badger Algorithm And Capuchin Search Algorithm | Icfmmp-2021 | 1–17(2022) |
| 13 | Nirmal Chandra Behera, Siddharth Jeet, Chandan Kumar Nayak, Dilip Kumar Bagal, Surya Narayan Panda, Abhishek Barua | Parametric Appraisal Of Strength & Hardness Of Resin Compacted Sand Castings Using Hybrid Taguchi- Waspas- Material Generation Algorithm | Icfmmp-2021 | 1226- 1233(2022) |
| 14 | Surya Narayan Panda, Ajit Kumar Pattanaik,Pradip Kumar Sahu, Prakash Kumar , Bijay Kumar Khamari | Process Parameter Optimization In Edm: A Multiobjective Approach Using Metaheuristic Approach | Icamme-2019 | 193– 201(2020) |
| 15 | Ashutosh Deo, Dilip Kumar Bagal, Ajit Kumar Pattanaik, Surya Narayan Panda, Abhishek Barua, Ritesh Kumar Barkey, Siddharth Jeet | Recent Advancements In Ice Jet Machining Process As An Alternative Of Awjm | Icfmmp-2021 | 981- 985(2022) |
| 16 | S. N. Panda, S. Panda, D.S.Khamari, P. Mishra , A. K. Pattanaik | Reevaluation Of Ball-Race Conformity Effect On Rolling Element Bearing Life Using Pso | International Conference On Computational Intelligence And Data Mining/11th- 12th Nov 2017 | 2194-5357 (2019) |

| 17 | Dilip Kumar Bagal, Abhishek Barua, Siddharth Jeet, Antarjyami Giri, Ajit Kumar Pattanaik & Surya Narayan Panda | Scope Of Using Photovoltaic Cell To Power Electrical Units Of Air- Conditioned Linke Hofmann Busch (Lhb) Coaches Used In Indian | Icaacr2020 | 405– 414(2021) |
|----|--|---|--|---------------------|
| | | Railways | | |
| 18 | Dilip Kumar Bagal, Abhishek Baruab, Siddharth Jeet, Dipti Acharjya, Ajit Kumar Pattanaik, Surya Narayan Panda | Tribological Investigation Of Quality Of The Industrial Speed Reducer Synthetic Lube Oil Used In Material Handling Industry | Icfmmp-2021 | 1918- 1922(2022) |
| 19 | Surya Narayan Panda, Ajit Kumar Pattanaik, Alok Kumar Patel, Sasmita Nayak, Pravajyoti Patra, Dilip Kumar Bagal | Process parameter optimization for machining of Ti-6Al-4V using WASPAS and multi- objective genetic algorithm along with exponential trend line analysis | Innovative Product Design and Intelligent Manufacturing Systems-2023 | 2023 |

III) National Journal :

| Sl. No. | Title of the paper | Name of the journal in which publication has been made | Vol/No | Publicat ion Year | Pages |
|---------|---|---|--------|-------------------|-----------|
| 01 | Parametric Data Modeling and Experimental Approach for Spot Weldment in SS202 | Int. Journal of Engineering Research and Application | 3 | 2013 | 130-135 |
| 02 | Optimization of process parameters in spot weldment in OEM grade steel using Genetic Algorithm | International Journal on Mechanical Engineering and Robotics | 3 | 2015 | 25-29 |
| 03 | Optimization of Spur Gears Using Profile Modification | International Journal of Advanced Mechanical Engineering | 8 | 2018 | 71-80 |
| 04 | Re-examination for Effect of Ball Race Conformity on Life of Rolling Element Bearing using metaheuristic | International Journal of Advanced Mechanical Engineering | 8 | 2018 | 285- 294 |
| 05 | Reinforcing bar deterioration and anchorage zone cracking on the load capacity of RC half-joints in girder of major bridge on the river of Sutlej in the State of Punjab | International Journal of Advanced Mechanical Engineering | 8 | 2018 | 97-110 |
| 6 | Productivity Improvement of Continuous Casting Through Utilization of Caster Speed Using Goal Programming Technique | International Journal of Advanced Scientific Research and Management | 3 | 2018 | 1-4 |
| 7 | Mechanical Characterization of GPL/Polymer Nanocomposite Structure using Finite Element Analysis and SCILAB | International Journal of Applied Engineering Research | 14 | 2019 | 69-78 |
| 8 | Multi-Parametric Optimization During Drilling | International Journal of Management, | 09 | 2019 | 2501-2509 |

| | of Aerospace Alloy (UNS A97068) Using Hybrid RSM-GRA, GA and SA | | | |
|---|---|-------------------------|------|-------|
| 9 | Thermal Model for Analysis of Hard Turning of Titanium alloy by Coated carbide Tool | Research in Engineering | 2019 | 70-82 |

IV) National Conference :

| Sl. No. | Title of the paper | Name of the | Vol/No. | Publicat | Pages |
|---------|-------------------------|----------------------|---------|----------|---------|
| | | Conference in which | | ion Year | |
| | | publication has been | | | |
| | | made | | | |
| 01 | Parametric | International | 2 | 2016 | 295-300 |
| | Optimization of EDM | Interdisciplinary | | | |
| | Process By Using | Conference on | | | |
| | Taguchi Based Grey | Engineering Science | | | |
| | Relational Analysis For | And Management | | | |
| | Mild Steel IS 1018 | | | | |

10. SPONSORED R & D PROJECTS

| Sl. No. | Title of Project | Sponsoring Agency | Period | | Project Sanctioned Amount in INR | Status |
|------------|---|----------------------|------------|------------|---|-----------|
| | | | From | То | | |
| 1 | Investigation to fatigue and vibration characteristics of Rolling Element Bearing | AICTE | 18/06/2019 | 31/03/2021 | 8.30 Lakh | Completed |

11. Conference/ Workshop/Seminar/ Organized

| Sl. | Title of | Role | Funding / | Date of Seminar / | No. of |
|-----|---|-------------|----------------------------|---------------------------|-------------|
| No | Seminar / Conferences / Short | | Sponsoring | Conferences / Short | Participant |
| | – term Courses | | Agency | – term Courses | s |
| 01 | 2nd National Conference on Multidimensional Advancement in Mechanical Engineering | Coordinator | TEQIP-III | 27-28 Dec 2017 | 110 |
| 02 | MARFF-2018 | Coordinator | TEQIP-III | 3-7 Oct 2018 | 60 |
| 03 | Emerging Manufacturing Technologies and Strategies- 2021 | Coordinator | TEQIP-III | 5-9 july 2021 | 100 |
| 04 | Materials And Manufacturing: Insight to Modern Technologies- 2022 | Coordinator | DHTE,Govt. Of Jharkhand | 1st to 5th August 2022 | 100 |

12. Symposium/ Workshop/Seminar/ Attended

- 1.One Week Online Faculty Development Programme on "Vibration Analysis & Condition Monitoring for Rotating Machines" Organized at Indira Gandhi Institute of Technology, Sarang, Dhenkanal, Odisha, India during 05-09 October, 2020
- 2.AICTE Training And Learning (ATAL) Academy Online FDP on "ADVANCEMENT IN MANUFACTURING TECHNOLOGIES FOR INDUSTRIAL APPLICATIONS" from 2020-8-24 to 2020-8-28 at Gyan Ganga Institute of Technology and Sciences.
- 3.AICTE Training And Learning (ATAL) Academy Online FDP on "Additive Manufacturing" from 2020-9-21 to 2020-9-25 at Vasireddy Venkatadri Institute of Technology
- 4.AICTE Training And Learning (ATAL) Academy Online FDP on "3D Printing & Design" from 2020-12-14 to 2020-12-18 at Dr. BR Ambedkar National Institute of Technology Jalandhar.
- 5.AICTE Training And Learning (ATAL) Academy Online FDP on "Robotics" from 2021-1-5 to 2021-1-9 at Rajeev Gandhi Memorial College of Engineering and Technology
- 6.One week online short term course on "Multi-Scale Computational Fluid Dynamics: Fundamentals and Applications" held on September 21-25, 2020, organized by the Department of Mechanical Engineering, Dr. B. R. Ambedkar National Institute of Technology Jalandhar, Punjab, India
- 7.TEQIP assisted course on Open Source Tools for Scientific Computing Scilab Python, R and Latex from 28 th December, 2020 to 01 st January, 2021 organized by the Department of Management Studies IIT Roorkee
- 8.Short Term Training Programme on "Advance of Materials Design, Machining and Characterization (AMDMC-2020)" Organized by Department of Production Engineering, Veer Surendra Sai University of Technology, Burla during 21st to 26th November 2020
- 9.Faculty Development Programme on "ADVANCES IN MATERIALS & MACHINING PROCESSES FOR RECENT INDUSTRIAL APPLICATIONS" Organized by Department of Production Engineering, Veer Surendra Sai University of Technology, Burla during 7th to 11th Sept 2020
- 10.One week Faculty Development Program on "Computational Intelligence Techniques for Machine Learning" organized by the Department of Computer Science & Engineering and Information Technology, Jaypee University of Information Technology, Waknaghat-173234 (H.P.), India, from August 31 to September 5, 2020
- 11.One week Online FDP program on LaTex from 13th to 19th July 2020 conducted by Jamshedpur Women's College in collaboration with Spoken Tutorial, IIT Bombay.
- 12.AICTE Sponsored Online Short-Term Training Programme (STTP) on "Advances in Finite Element Method for Industry & Research Applications" during 7th 12th September 2020 organized by the Department of Civil Engineering, Vasavi College of Engineering (Autonomous), Hyderabad
- 13.One Week Faculty Development Programme on Advances in Manufacturing (AIM-2021) organised by the Department of Mechanical Engineering, BIT Sindri, Dhanbad in collaboration with TEQIP III from 15th June,2021 to 19th June,2021
- 14.Short term training programme "NBA ACCREDITATION" conducted by National Institute of Technical Teachers' Training and Research, Bhopal, 10-08-2020 to 14-08-2020
- 15.AICTE sponsored Two Weeks Online Faculty Development Programme (FDP) on "Application of Artificial Intelligence and Machine Learning in Digital Manufacturing" from 01st to 14th of December 2020, organized by Department of Mechanical Engineering, GIET University, Gunupur, Odisha-765022
- 16.Three days Online Workshop on "Rotor and Bearing Systems (RBS-2020)" Organised by Department of Mechanical Engineering, SRM Institute of Science and Technology held between November 24th 26th , 2020

- 17.One Week National Webinar on "Advances in Production Engineering (APE-2020)" sponsored by Technical Education Quality Improvement Programme (TEQIP-III) during 14thto 19th September, 2020 organized by Department of Production Engineering Indira Gandhi Institute of Technology (IGIT), Sarang, Dhenkanal, Odisha.
- 18.One Week Online Faculty Development Programme on "Recent Advancement of Materials and its Application (RAMA-2020)" Organized by Veer Surendra Sai University of Technology, Odisha, Buria, India from 15th-19th September, 2020 under TEQIP-III.
- 19. "Advanced Simulation Solution" Course Conducted at SEIMENS, BIT Sindri, Dhanbad from 24-Sep-20 to 30-Sep-20
- 20.Faculty Development Program on "Recent Trends and Advances in Robotics and Automation", through video conferencing mode, hosted by Department of Mechanical & Electrical Engineering, CET, Bhubaneswar, from 21st 25th September, 2020
- 21.One Week Online Short Term Course on Innovation and Research in Welding, Joining and Cutting Technology held during 07 11 September 2020 at Department of Mechanical Engineering in association with Institute Innovation Cell, NIT Silchar
- 22. Short Term Training Program on "Advances in Additive Manufacturing" organized by Siemens Centre of Excellence for Digital Manufacturing and Robotics under NAFETIC at Yeshwantrao Chavan College of Engineering, Nagpur, conducted between 24th to 29th of August, 2020
- 23. Five days Online Workshop on "Modeling & Simulation Tools"
- organized by Material Research Centre and DHIO Research & Engineering Pvt Ltd, from 20th 24th October 2020
- 24.One Week Online Short Term Course on "Advances in Chemical, Biochemical and Allied
- Industries" held during Nov. 05-09, 2020. organized by Department of Biotechnology & Centre for Energy and Environment, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab under the aegis of TEQIP-III Ministry of Education. Govt, of India
- 25. Five-Day Online Workshop on "Research Advances in Science & Engineering" organized by the Department of Mechanical Engineering, CREC(A), Tirupati during June 14-18, 2021.
- 26.One Week Online Faculty Development Programme on "RECENT ADVANCEMENTS IN MANUFACTURING AND MATERIALS PROCESSING" Organized Veer Surendra Sai University of Technology, Odisha, Burla, India from 10 -14 September, 2020 under TEQIP-III
- 27. Five Day Online Faculty Development Programme on "Mechatronics, Automation and Robotics" organized by Department of Mechanical Engineering, SoE in association with IEEE Bombay Section and AICRA during August 3-7,2020.
- 28.Short Term Training Programme through ICT Mode on Refresher Course in Strength of Material organised by this institute from 04/01/2021 to 08/01/2021 ,NITTTR,KOLKATA
- 29.One week online short term course on "Multi-Scale Computational Fluid Dynamics: Fundamentals and Applications" held on September 21-25, 2020, organized by the Department of Mechanical Engineering, Dr. B. R. Ambedkar National Institute of Technology Jalandhar, Punjab, India
- 30.one week e-Workshop on "Emerging Manufacturing Technologies and Strategies (EMTS-2021)" organized by Production Engineering Department, BIT Sindri, Dhanbad from 05th July to 09th July, 2021.
- 31.One week online Short-Term Training Program (STTP Phase-III) on "Innovations and Challenges in Industry 4.0 Automation and Smart Manufacturing", organized by Department of Mechanical Engineering, Kallam Haranadhareddy Institute Of Technology, Guntur, Andhra Pradesh from 26th July 2021 to 31st July 2021
- 32.Faculty Development Program on "Data Science andAI for Non-Programmers using Momentum" organized by "Computer Science & ITDepartment" of BIT Sindri in association with Accure Private Ltd. held from 26thDecember 2022 to 07th January 2023.

33.One Week workshop on "RESEARCH METHODOLOGY & RESEARCH PAPER WRITING [RMRPW-2023]" from 13th to 17th February, 2023 organized by the Department of Electrical Engineering, BIT Sindri Dhanbad and Technically Co-Sponsored by IEEE Kolkata Section

34.One week e-Workshop on "Materials and Manufacturing:Insights to Modern Technology(MMIMT-2022)" organized by Production Engineering Department, BIT Sindri, Dhanbad from 1st to 05th August 2022.

Date:

Place: BIT Sindri