Current Status: Request circulated to members for input !

Member Details

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6. Address	Rajkot Morbi Road, Rajkot 360003, , GUJARAT, India
7. Other Organization Name	Marwadi University
8. Designation	Professor, Department of Mechanical Engineering
9. Other Relevant Information	Dr Amit Sata is an alumina of Indian Institute of Technology Bombay, and has more than 20 years of experience at academic as well as industrial level. Dr Sata is currently a professor in Department of Mechanical Engineering, and heading Innovation & Entrepreneurship Cell at Marwadi University. He has his startup Udhyog 4.0 that mainly focused on transformation of existing manufacturing enterprises into SMART manufacturing enterprises through indigenous hardware and software at low cost.
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Applied in following departments :

S No	Technical Department	Technical Committee	Status
1.	Electronics and Information Technology Department (LITD)	Smart Manufacturing (34)	**Request circulated to members for input**

Curriculum Vitae

Personal

Name	Dr Amit V Sata
Date of birth	17th July, 1979
Cell	+91 9825 2177 02
E mail	ameetsata2000@gmail.com
Sex	Male
Nationality	Indian
Address	"Shubh Laxmi", Plot No 44, Jivraj Park, Inside Ambika Township Rajkot – 360 005

Education

Degree	University / Education Board	Institute	Year	Performance
PhD	IIT – Bombay	IIT–Bombay	2010 – 2015	9.25/10 (CPI)
MTech	IIT - Bombay	IIT–Bombay	2008– 2010	8.8/10 (CPI)
B.E. (Mech.)	Saurashtra University	VVPEC –Rjt	1996 – 2000	71 %
H.S.C	G. S. E. B	SVP-Rjt	1996	70 %
Matriculation	G. S. E. B	SGV- Rjt	1994	69 %

PhD Title and Abstract

Prediction and Analysis of Defects and Mechanical Properties of Investment Casting *under the supervision of* ***Dr. B. Ravi*** *(Institute chair professor, IIT Bombay)*

Metal parts with intricate shapes and thin walls can be economically produced by investment casting process. It involves creating a ceramic shell around a wax pattern, melting out the wax, pouring liquid metal in the heated shell, and removing the solidified part after breaking the shell. These parts are used in automobile, aerospace, chemical, biomedical and other critical applications; they are required to be free of defects and possess the desired range of mechanical properties. In practice, this is a big challenge, since there are large number of parameters related to process and alloy composition; their values change for every casting, and their effect on quality is not very well understood. A large number of castings are therefore rejected, repaired or recycled, leading to wastage of production resources. There is a need for a systematic approach for prediction and analysis of defects as well as mechanical properties of investment castings, which can be easily implemented in industrial foundries.

A survey of 20 investment casting (IC) foundries located in Rajkot cluster in Western India was first carried out to understand their capabilities and quality issues. A hierarchical methodology for systematic categorization of major IC defects, such as ceramic inclusion, flash, misrun, shrinkage, and slag inclusion was developed. Several different models were evolved to predict these defects using Artificial Neural Network (ANN) and Multivariate Regression (MVR). The models were trained using a large amount of data related to process parameters, alloy composition and occurrence of defects, collected from an industrial IC foundry. Principal component analysis was employed to reduce the redundancy in data, resulting in faster computations. The models were tested on a portion of the foundry data kept aside for the purpose, and their prediction accuracies were compared. A similar approach was evolved for prediction of mechanical properties (ultimate tensile strength, yield strength, and percentage elongation) of investment cast parts. The ANN (with LM

training algorithm) gave better prediction of defects, while MVR gave better prediction of mechanical properties.
A probabilistic approach based on Bayesian inference was developed to analyze the defects and to find critical parameters (along with their avoidable range of values) to minimize their future occurrence. A similar approach was developed to analyze the values of mechanical properties, and determine the critical parameters (along with their preferred range of values) to obtain the desired properties. The methodology for prediction and analysis of defects as well as mechanical properties was further validated by applying the models (without any further training or customizing), to a different casting produced in the same foundry, but with slightly different values of process parameters and alloy composition. The entire methodology was found to be easy to implement and use by foundry engineers, unlike process simulation, which requires a high level of inputs (3D models, property data, etc.), domain knowledge and interpretation experience. This work has proved the feasibility and value of process data driven analysis, optimization and control, and is expected to pave the way for more work in this direction. That is also expected to benefit the industry.

Dissertation Title and Abstract

Shrinkage Porosity Prediction using Casting Simulation *under the supervision of* ***Dr. B. Ravi*** *(Institute chair professor, IIT Bombay)*

Shrinkage porosity is one of the most common defects in castings. Various existing techniques of shrinkage porosity prediction like modulus and equi-solidification time and criterion function have been reviewed. Various criteria functions including Niyama criterion, dimensionless Niyama criterion, Lee et al. criterion and Franco criterion for prediction of shrinkage porosity have been studied in this work.
From literature, L shape casting has been analyzed for predicting location of shrinkage porosity using solidification simulation. Simulation result is comparable with available experimental result. Threshold values of Lee et al., Davis, Franco and Bishop criterion for cast steel have been established by comparing results with Niyama criterion.
Benchmark casting, a combination of three T-Junction, has been cast and analyzed to understand dependency of shrinkage defect size on geometric parameters and thermal parameters. The experiments were carried out for Ductile iron (500/7), plain carbon steel (1005 steel) and stainless steel (SS 410). These experimental data are used to set limiting temperature gradient values in AutoCAST®. Further, simulation experiments were carried out by varying thickness ratio from 0.25 to 1.5. The result of experiments and simulations are used as input to regression analysis to evolve a set of empirical equations to predict shrinkage porosity defect size in T junction considering the effect of geometric parameter alongwith thermal parameters. Further, an empirical model of SS 410 is validated by casting of T junction which is having thickness ratio and length ratio of 1.75 and 5 respectively. The predicted size of shrinkage defect is approximately matching with observed size of defect.

Professional Experience

01/12/2016 – *Present*
Associate Dean (Innovation & Entrepreneurship) & Professor
Mechanical Engineering Department, Marwadi University - Rajkot

01/01/2013 – 30/11/2016
Professor
Mechanical Engineering Department in BHGCET- Rajkot

04/08/2011 –31/12/2012
Assistant Professor
Mechanical Engineering Department in Om Shanti Engineering College- Rajkot

25/11/2002 –03/08/2011
Lecturer
Mechanical Engineering Department in VVP Engineering College- Rajkot

1/1/2002 – 31/08/2002
Assistant Customer Care Manager
Cargo Motors Guj. Pvt. Ltd. – Rajkot (An Authorized workshop for the Maruti vehicle)

1/12/2000 – 31/12/2001
Production Incharge
Dipak Metals – Rajkot (Manufacturer of wide range of Quality Kitchenware Products)

1/8/2000 – 30/11/2000
Quality Control Engineer
Rajan Techno Cast Pvt. Ltd. – Shapar (Manufacturer of High Precision Investment Casting)

Research Interest

- Manufacturing engineering
- Metal Casting
- Industrial Internet of Things (IIoT)
- Manufacturing Data Analytics
- Artificial Intelligence
- SMART manufacturing
- Digital Twin
- Metaverse Enabled Manufacturing Systems

Academic Contributions

- Developed course on Manufacturing Process focused on implementation of project-based learning.
- Proposed minor course of one year on **SMART Systems** at under-graduate level. Also, proposed post-graduate course of two years on **SMART Systems**.
- Identified more than 75 technical skills focused on industrial needs, and necessary to be imparted in mechanical engineers to strengthen skill domain of engineers. Also, Initiated Centre for Skill Enhancement (CSE) focused on imparting technical skills to mechanical engineering students

Funded Projects & Grants

Year	Details
2023-26 (*Under review*)	**Synergic Integration of Smart Innovations in Investment Casting for High Valued Products** submitted to Department of Science & Technology (India) under TDT (AMT)
	Overall goal is to synergically integrate smart innovations in investment casting process for producing high valued products required in aerospace and defense sectors
	Principal Investigator, Funding: INR 606.11 lacs
2023-24	**Development of Novel Wellness System for Diagnosing Specific Wellness Related Issues Using Image Processing and Pulsation** funded by Kankesh Pharmacy LLP - Viramgam
	Overall goal is to develop a system that will diagnose specific wellness related issues (obesity, diabetic, acidity, etc) through fundamentals of AI, and suggest relevant remedies.
	Principal Investigator, Funding: INR 6.87 lacs

Year	Details
2023-24	**Enhancing Ceramic Slurry Related Properties for Investment Casting Process**
	Overall objective is to identify critical parameters affecting mechanical and biological properties of slurry used in shell making process in investment casting funded by King Khalid University – Kingdom of Saudi Arabia under group related to Characterization of Novel Materials Processed Using Advanced Technology.
	Co-Principal Investigator, Funding: 24000 SAR (nearly INR 5 lacs)
2022-23	**Development of Entrepreneurship Capacity Building Cell (ECBC) for Innovation, Incubation and Research** submitted to Savli Technology and Business Incubator (STBI) – Savli
	Overall objective is to establish ECBC at Marwadi University to promote startups in the domain of health care
	Dy Coordinator, Funding: INR 10 lacs
2016-2021	**SMART Foundry 2020** (Sustainable Metalcasting using Advanced Research and Technology) of 9.24 crore (Nearly $1.25 million) funded by Department of Science & Technology (India) under Technology Systems Development Programme (TSDP)
	Overall goal is to develop a Smart Foundry that can be used to rapidly create small intricate metal parts required in tiny order quantities
	Co-Principal Investigator – Module E (Process Monitoring and Data Analytics), Funding: INR 36.21 lacs
2017-2022	**RAPID Casting** funded by Centre for Entrepreneurship Development, Government of Gujarat under scheme 2 (Short-term bridge course by industries/institute).
	Overall goal is to set up skill enhancement center for imparting technical skills related to rapid product development in metal casting.
	Principal Investigator, Funding: INR 100 lacs
2019	Founded innovative startup **Udhyog 4.0 LLP** that has been further selected as one of the most innovative startups by Government of Gujarat (India)
	Overall goal is to transform existing manufacturing enterprises into SMART manufacturing enterprise by indigenously developed modules including process monitoring, data management and data analytics at very affordable cost
	Founder, Funding: INR 20 lacs
2023	**Investment Casting Complexity Analysis System** funded by New Generation Innovation and Entrepreneurship Development Centre (NewGen IEDC) - Gandhinagar
	Overall goal is to develop investment casting complexity analysis system that provides an insight about complexity involved in investment casting to designer, and further provides an idea about cost involved in manufacturing of investment casting.
	Mentor, Funding: INR 1.75 lacs
2023	**Development of Antibiotics for Preventing Microorganisms Growth in Slurry Used in Investment Casting** funded by New Generation Innovation and Entrepreneurship Development Centre (NewGen IEDC) - Gandhinagar
	Overall goal is to develop antibiotics to prevent growth of harmful microorganism that can be added into ceramic slurry used in shell building process for investment casting.
	Mentor, Funding: INR 1 lac
2023	**IoT Gateway for CNC machine** funded by New Generation Innovation and Entrepreneurship Development Centre (NewGen IEDC) - Gandhinagar
	Overall goal is to plug and play device for transforming existing CNC into SMART CNC machine that will further provide real time monitoring over machining process.
	Mentor, Funding: INR 0.75 lac

Year	Details
2022	**Development of IoT Enabled Oxygen Concentrator** funded by New Generation Innovation and Entrepreneurship Development Centre (NewGen IEDC) - Gandhinagar
	Overall goal is to develop IoT enabled oxygen concentrators using multi-disciplinary approach that will supply pure oxygen to multiple patients during the pandemic situation.
	Mentor, Funding: INR 1.6 lacs
2022	**Stubble to Sanitary Pads** funded by New Generation Innovation and Entrepreneurship Development Centre (NewGen IEDC) - Gandhinagar
	Overall goal is to develop sanitary pads using cellulose extracted from stubble related to wheat and rice remained unutilized at the end of season.
	Mentor, Funding: INR 1.5 lacs
2021	**Intelligent Inspection Device for Metal Casting** funded by New Generation Innovation and Entrepreneurship Development Centre (NewGen IEDC) - Gandhinagar
	Overall goal is to develop intelligent inspection based on fundamentals of artificial intelligence that measures overall dimension and identifies surface related defects in metal casting.
	Mentor, Funding: INR 2 lacs
2021	**IoT Enabled Jewellery Casting** funded by New Generation Innovation and Entrepreneurship Development Centre (NewGen IEDC) - Gandhinagar
	Overall goal is to develop SMART jewellery casting setup that can be operated and controlled using SMART devices
	Mentor, Funding: INR 2 lacs
2021	**Extending an application of AR/VR to Engineering Education** funded by New Generation Innovation and Entrepreneurship Development Centre (NewGen IEDC) - Gandhinagar
	Overall goal is to extend an application of AR/VR to professional education, and create metaverse practical work.
	Mentor, Funding: INR 2 lacs
2020	**IoT Enabled Testing Devices for Investment Casting** funded by New Generation Innovation and Entrepreneurship Development Centre (NewGen IEDC) - Gandhinagar
	Overall goal is to develop IoT enabled testing and measurement devices for investment casting industries.
	Mentor, Funding: INR 1.9 lacs

Technical Contributions

- *Member of Indian Foundry Journal Editorial Committee*
- *Member of Entrepreneurship Cluster - IUCEE: Indo Universal Collaboration for Engineering Education*
- *Council member of Confederation of Indian Industry (CII) - Western Gujarat Zonal*
- *Council member of The Institute of Indian Foundrymen – Rajkot Chapter*
- *Member of ISO IEC/Joint Technical Committee (JTC)*/Subcommittee (SC)36 (Working Group 7) focuses on development of international standards related to Information technology for learning, education and training; *ISO IEC/JTC*/SC41 (Working Group 5) focuses on development of international standards related to Internet of Things & Digital Twin; *ISO IEC/JTC*/42 (Working Group 2 & 4) focuses on development of international standards related Artificial Intelligence
- *Member of* Information technology for learning, education and training *(LITD19), Internet of Things (IoT) related technologies Sectional Panel (LITD 27) & Artificial Intelligence Sectional Panel (LITD 30)* under Bureau of Indian Standards (BIS)-India
- *Member of Editorial Board* - American Journal of Neural Networks and Applications; International Journal of Industrial and Manufacturing Systems Engineering
- *Topic Organizer*-International Mechanical Engineering Congress & Exposition (ASME-IMECE 2017), USA
- Part of executive committee for ASME IMECE Track on Safety Engineering Risk Analysis Division (SERAD)
- *Member of Scientific Committee*-International Conference on Applied Mechanics, Electronics, and Mechatronics Engineering (AMEME 2016), China
- *Chairperson (Technical Session)*-Indian Foundry Congress 2016, India

- *Peer Reviewer*-International Mechanical Engineering Congress & Exposition (ASME-IMECE 2017,2016,2015 & 2014), USA; CHARUSAT Journal (A scientific research publication from Charotar University of Science and Technology-Changa

International Exposures

- Visited Caucasus University (CU), Georgian Aviation University (GAU), International Black Sea University (ISBU), and Georgian Institute of Public Affairs (GIPA) during 15-24 December 2023 for collaboration with Marwadi University. Lead in Signing MoU with GAU and ISBU for collaboration in the direction of student exchange, faculty exchange, research, innovation, and entrepreneurship.
- Nominated for **Teaching Mobility Program** under ERASMUS+ program during 7-11 May 2018 at University of Pitesti, Romania
- Presented research work on 9 November 2017 during ASME IMECE 2017 at Tampa, USA
- Presented research work on 24 May 2016 during World Foundry Congress at Nagoya, Japan

Collaborations

- Played instrumental role in initiation of collaboration with Georgian universities including Caucasus University (CU), Georgian Aviation University (GAU), International Black Sea University (ISBU), and Georgian Institute of Public Affairs (GIPA)
- Initiated collaboration with Central Manufacturing Technology Institute (CMTI) – Bengaluru, and National Institute of Advanced Manufacturing Technology (NIAMT) – Ranchi for the domain of manufacturing innovations.
- Initiated collaboration with Savli Technology and Business Incubator (STBI) - Vadodara for the domain of healthcare innovations.
- Initiated collaboration with Athravam Venture Private Limited - Rajkot for providing to startups incubated at Marwadi University.
- Initiated collaboration with Gorecha Metal Tech - Rajkot for providing platform for implementing research conducted in the domain of investment casting.

Awards & Recognition

- ***Soli Commissariat Award*** during 71st Indian Foundry Congress held during 8-10 February, 2023 at Greater Noida
- ***Chandran Menon Memorial Award for Applied Research and Innovative Technology*** for the year 2021-22 by **The Institute of Indian Foundrymen (IIF)** during 71st Indian Foundry Congress held on 9 February, 2023 at Greater Noida
- Got Felicitation for founded startup ***Udhyog 4.0*** by **Honorable Union Minister of Skill Development and Entrepreneurship Shri Rajeev Chandrasekhar** during his visit at Marwadi University under initiative New India for Young India on 4 October 2022
- ***Best Paper Award*** during *5th International Conference on Advances in Steel, Power and Construction Technology* held during 15-17 June 2022 at Raigarh (India)
- ***Best Innovator Award*** for the year 2021 by Marwadi University
- ***Best Paper Award*** during *2nd International Conference on Computational Intelligence in Data Science (ICCIDS-2019)* held during 21-23 February, 2019 at Chennai
- Received ***International Travel Support (ITS)*** under Science and Engineering Research Board (SERB) for presenting research work in **International Mechanical Engineering Congress & Exposition (IMECE) – 2017** held during 1-10 November 2017 at Tampa (Florida), USA
- Awarded with $1000 and five-years membership by American Society of Mechanical Engineers (ASME) for mentoring the project ***Innovative Multi-Axis Wind Turbine*** that won **Best Overall Impact/Utility** under **Mixed Software Category** at **Innovative Design Software Challenge (IDSC) 2016** organized by ASME at Charlotte, US during 21-24 August 2016

Knowledge Transfer

- **Supervising** PhD Students (7) focused on extending an application of IoT to manufacturing engineering, and **guided more than 40** undergraduate & postgraduate projects in different domains
- **Mentoring** startups including IoT Enabled Testing labs, Intelligent Inspection Devices for Metal Casting and Ceramic Industries, IoT Enabled jewellery Casting, IoT Enabled Oxygen Concentrators, and Stubble to Sanitary (S2S).

Transfer of Technologies

- **Transferred the Technology** related to IoT Enabled Vertical Centrifugal Casting & Bottom Pouring Resistance Melting Furnace developed at Marwadi University as a part of government funded project SMART Foundry 2020 to National Institute of Advanced Manufacturing Technology (formerly known as the National Institute of Foundry and Forge Technology) – Ranchi
- **Transferred the Technology** related to Software on Intelligent Inspection System for Metal Casting (SW-15622/2022) developed at Marwadi University to Kankesh Pharmacy LLP – Viramgam (Gujarat) to Develop of Novel Wellness System for Diagnosing Specific Wellness Related Issues Using Image Processing and Pulsation

Intellectual Property Rights (IPRs)

IPRs – Commercialized

1. **Internet of Things Enabled Bottom Pouring Resistance Melting Furnace** (351953-001)
2. **Permeability Measurement Device for Investment Casting** (356835-001)
3. **IoT Enabled Temperature Monitoring Device for Melting Furnace** (349855-001)
4. **Monitoring Device for Hydraulic Wax Injection Machine** (350111-001)
5. **Monitoring Device for Wax Injection Machine** (368286-001)
6. **Quality Prognosis System (QPS) for Manufacturing** (SW-14972/2021)
7. **Foundry Data Analytics System (FDAS)** (SW-12195/2019)
8. **Android Based Process Monitoring Module for Investment Casting Foundries** (SW-14977/2021)
9. Software on **Data Management Module for Investment Casting** (SW-17234/2023)
10. Software on **Process Monitoring Module for Investment Casting** (SW-17201/2023)

IPRs – Granted/Published

1. Indian Patent on **Effective conditioning of used foundry sand for developing high strength high performance construction composites** (202321054706, published in Journal 47/2023)
2. Indian Patent on **Processing of Rice stubble for making Absorbent Sheet** (202321051159, published in Journal 47/2023)
3. Indian Patent on **Internet of Things Assisted Oxygen Concentrator for Supplying Pure Oxygen** (202321042339, published in Journal 47/2023)
4. Indian Patent on **Biodegradable and Plastic Free Absorbent Layers for Sanitary Pads and Diapers** (202321030199, published in Journal 47/2023)
5. Indian Patent on **A smart device to measure the viscosity of ceramic slurry used in Investment Casting** (202321030208, published in Journal 45/2023)
6. Indian Patent on **Device to Convert Non IIoT-based Wax Injection Press into IIoT-based Press Used in Investment Casting** (202321054702, published in Journal 39/2023)
7. Indian Patent on **Device to Transform Preheating Furnace Used in Investment Casting into IoT-based Furnace** (202321054704, published in Journal 39/2023)
8. Indian Patent on **IoT Based High Speed Slurry Mixer to Prepare Slurry Used for Shell Making in Investment Casting** (202321054705, published in Journal 39/2023)
9. Indian Patent on **A device to Measure Shell Permeability During Investment Casting Process** (202021018663, published in Journal 25/2022)
10. Indian Design on **Smart Welding Attachment** (394410 -001)
11. Indian Design on **Hand Plough** (376874-001, published in Journal 17/2023)
12. Indian Design on **Intelligent Inspection Device for Metal Casting** (351954-001, published in Journal

12/2023)
13. Indian Design on **Harvesting Invisible High Voltage from Sky** (377491-001, published in Journal 11/2023)
14. Indian Design on **Queue Length Analyzer System** (377508-001, published in Journal 09/2023)
15. Indian Design on **Internet of Things Enabled Vertical Centrifugal Casting Setup** (351952-001, published in Journal 04/2023)
16. Indian Design on **Internet of Things Enabled Bottom Pouring Resistance Melting Furnace** (351953-001, published in Journal 02/2023)
17. Indian Design on **Viscosity and pH Measurement Device for Investment Casting** (356843-001, published in Journal 02/2023)
18. Indian Design on **Front Knuckle for all Terrain Vehicle** (371078-001, published in Journal 02/2023)
19. Indian Design on **Die and Punch for Making Powder Metallurgy Tool Bit** (371075-001, Published in Journal 51/2022)
20. Indian Design on **SMART Oxygen Concentrator** (371074-001, Published in Journal 51/2022)
21. Indian Design on **Monitoring Device for Wax Injection Machine** (368286-001, Published in Journal 51/2022)
22. Indian Design on **Permeability Measurement Device for Investment Casting** (356835-001, Published in Journal 15/2022)
23. Indian Design on **Needle Penetration Device for Measuring Hardness of Wax** (363470-001, published in Journal 41/2022)
24. Indian Design on **High-Speed Slurry Mixer for Investment Casting** (355604-001, Published in Journal 08/2022)
25. Indian Design on **IoT Enabled Temperature Monitoring Device for Melting Furnace** (349855-001, Published in Journal 47/2021)
26. Software on **Weighted Criteria Approach Based Complexity Computation System for Investment Casting** (SW-17446/2023)
27. Software on **Analytical Hierarchy Process Based Complexity Computation System for Investment Casting** (SW-17250/2023)
28. Software on **Data Management Module for Investment Casting** (SW-17234/2023)
29. Software on **Process Monitoring Module for Investment Casting** (SW-17201/2023)
30. Software on **SMART Foundry** (SW-17187/2023)
31. Software on **Viscosity Measurement System for Investment Casting** (SW-17078/2023)
32. Software on **Metaverse enabled Bottom Pouring Furnace** (SW-17035/2023)
33. Software on **Metaverse Enabled Vertical Centrifugal Casting Setup** (SW-17034/2023)
34. Software on **Intelligent Inspection System for Metal Casting** (SW-15622/2022)
35. Software on **Android Based Casting Defects Categorization System for Metal Casting** (SW-14964/2021)
36. Software on **Quality Prognosis System (QPS) for Manufacturing** (SW-14972/2021)
37. Software on **Android Based Process Monitoring Module for Investment Casting Foundries** (SW-14977/2021)
38. Software on **Intelligent Melting Furnace Monitoring System (IMFMS) for Jewellery Industries** (SW-15505/2021)
39. Software on **OptiTool** (SW-10234/2019)
40. Software on **Foundry Data Analytics System (FDAS)** (SW-12195/2019)

IPRs – Filed

1. Indian Patent on **Image Processing Based Device for Investment Castings to Measure Dimension and Detect & Categorize Surface-Defects** (202321030201)
2. Indian Design on **Protector Casing for Thunderbolt to Multiple Convertor** (389673-001)
3. Indian Design on **IoT Enabled Carbon Footprint Monitoring Device** (389668-001)
4. Indian Design on **Monitoring Device for Hydraulic Wax Injection Machine** (350111-001)
5. Software on **Smart Application for Gold Purity Checking Device** (27169/2023-CO/SW)
6. Software on **Complexity Computation System for Additive Manufacturing System** (10603/2023-CO/SW)
7. Software on **Fuzzy Analytical Process Based Complexity Computation System for Investment Casting** (8375/2023-CO/SW)
8. Software on **Permeability Measurement System for Investment Casting** (19370/2022-CO/SW)

Publications

International Journal – Published/Accepted

1. Nabhan Yousef, Dr Amit Sata, **Parametric Study of Inspecting Surface Defects in Investment Casting,** *The Jordan Journal of Mechanical and Industrial Engineering*, Volume 17 (4), pp. 24- 33, 2023
2. Nabhan Yousef, Dr Amit Sata, Pinal Kantesariya **Implementing Deep Learning Based Intelligent Inspection for Investment Castings,** *International Journal of Arabian Journal for Science and Engineering*, 2023 (*accepted*)
3. Nikunj Maheta, Dr Amit Sata **Development of Novel Complexity Index (CI) for Investment Casting,** *International Journal of Metalcasting*, 2023 (*accepted*)
4. Dr Amit Sata, Mr Philip Gajera, Mr Pinal Kantesariya **Udhyog 4.0: Indian Avatar for Foundry 4.0,** *Indian Foundry Journal*, Volume 69 (8), pp. 24- 33, 2023
5. Nabhan Yousef, Dr Amit Sata, **Intelligent Inspection Device for Investment Casting**, *Indian Foundry Journal*, Volume 69 (6), pp. 20-26, 2023
6. Nabhan Yousef, Dr Amit Sata, **Intelligent Inspection for Evaluating Severity of Surface Defects in Investment Casting,** *International Journal of Advanced Manufacturing Systems*, 2023 (*accepted*)
7. Nabhan Yousef, Dr Amit Sata **Innovative Inspection Device for Investment Casting Foundries,** *International Journal of Metalcasting*, 2023 (*accepted*)
8. Nikunj Maheta, Dr Amit Sata **Systematic Development of Cumulative Complexity Index for Investment Casting,** *International Journal of Advanced Manufacturing Systems*, 2022 (*in print*)
9. Ronak Shah, Dr Mitesh Popat, Dr Amit Sata, Dr Megha Karia, **Computational Simulation for Material Selection of Femoral Component in Total Knee Replacement (TKR)**, *Journal of Harbin Engineering University*, Volume 44(5), pp. 87-92, 2023
10. Mr Jignesh Jani, Mr Siddharth Jhala, Dr Deepika Mor, Dr Amit Sata **Extending Application of Computer-Aided Manufacturing for Development of Microtia Grade III Prosthesis – A Case Study**, NanoWorld J 9(S1): S83-S87, 2023
11. Nabhan Yousef, Chandrasinh Parmar, Dr Amit Sata **Intelligent Inspection of Surface Defects in Metal Castings Using Machine Learning**, *International Journal of Materials Today: Proceedings*, Volume 67(4), pp. 517-522, 2022
12. Vishesh Dharaiya, Dr Amit Sata **Geometry Driven Criterion Function for Predicting Shrinkage Porosity in Stainless Steel Castings with T Junction**, *International* Journal of Advanced Manufacturing Systems, Volume 21(3), pp.625-638, 2022
13. Divya Bhoraniya, Vishesh Dharaiya, Amit Sata **Application of *Niyama* Criterion to Predict Shrinkage Porosity in Vertical Centrifugal Casting (VCC) of ASTM A356 Alloy**, International Journal of Process Management and Bench Marking, Volume 12(3), pp. 395-406, 2022
14. Nikunj Maheta, Dr Amit Sata **5 Cs of Investment Casting Foundries in Rajkot Cluster – An Industrial Survey,** *International Journal of Archives of Foundry Engineering,* Volume 21(3), pp. 102-108, 2021
15. Hussam Abbas, Dr Amit Sata **Quality Improvement in Investment Castings Using Genetic Algorithm**, *International Journal of Engineering Technologies*, Volume 7(3), pp. 75-82, 2021
16. Dr Amit Sata, Dr B Ravi **Foundry Data Analytics to Identify Critical Parameters Affecting Quality of Investment Castings**, *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems Part B: Mechanical Engineering,* Volume 5(1), pp. 011010-011010-7, 2018
17. Sata Amit, Ravi B, **Bayesian Inference Based Investment Casting Defects Analysis System for Industrial Application**, *International Journal of Advanced Manufacturing Technology,* Volume 90(9), pp. 3301-3315, 2017
18. Dr Amit Sata, **Investment Casting Defect Prediction Using Neural Network and Multivariate Regression along with Principal Component Analysis**, *International Journal of Manufacturing Research*, Volume 11(4), pp. 356-373, 2016
19. Dr Amit Sata, **Development of Cloud Based Casting Defects Categorization System (CDCS)**, *International Journal of Archives of Foundry Engineering,* Volume 17(1), pp. 216-222, 2016
20. Sata Amit, Sutaria M, **Scope of Investment Castings Supported by Survey of Foundries in Rajkot Cluster**. *Indian Foundry Journal*, Volume 60(6), pp. 42-46, 2014

21. Sata Amit, Ravi B, **Comparation of Some Neural Network and Multivariate Regression for Predicting**

Mechanical Properties of Investment Castings. *International Journal of Materials Engineering and Performance*, Volume 23(8), pp. 2953-2964, 2014

22. Kedar Mehta, Robin Ranjan, Amit Sata, **Investigation of Various Airfoils for Maximization of Lift in Horizontal Axis Wind Turbine (HAWT) – A case study**, *International Journal of Interdisciplinary Environmental Review,* Volume 18(2), pp. 169-188, 2017

International Journal – *Under Review*

23. Amisha Patel, Sejal Shah, Pema Wangdi, Dinesh Kumar, Amit Sata, Tripti Swarnkar, Vijaykumar Gupta, Rajesh Mahadeva, H.C.S. Perera, Shashikant Patole **Ensemble Learning Approaches in HPV Associated Oral Squamous Cell Carcinoma,** *International Journal of Intelligent Systems*, 2023 (*in review*)
24. Nikunj Maheta, Dr Amit Sata **Complexity Computation System for Industrial Investment Castings – Use Cases,** *Journal of Operational Research Society*, 2023 (*in review*)
25. Nikunj Maheta, Dr Amit Sata **Fuzzy Analytical Hierarchy Process Based Complexity Index for Investment Casting,** *Journal of Brazilian Society of Mechanical Sciences and Engineering*, 2023 (*in review*)
26. Dhaval Anadkat, Dr Amit Sata, **Implementing Metaverse Enabled Vertical Centrifugal Casting** Journal of PRESENCE: Virtual and Augmented Reality, 2023 (*in review*)
27. Matoc Dhal Abraham, Nikunj Maheta, Dr Bhavesh Kanabar, Dr Amit Sata, **Development of the Additive Manufacturing Complexity Index (AMCI)**, *Journal of Rapid Prototyping*, 2023 (*in review*)
28. Ameen Al Njjar, Dr Amit Sata, Kamar Mazloum **A Review on Fabrication of AA7075 Aluminum-Based Metal Matrix Composites (MMCs) and Hybrid MMCs using Powder Metallurgy for Aerospace Applications**, *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, 2023 (*in review*)
29. Ameen Al Njjar, Dr Amit Sata, Kamar Mazloum **Simulation of the Die and Punch Behavior During the Compaction Process of Al2O3 -Based Matrix Composite Using Finite Element Analysis**, *International Journal of Advanced Manufacturing Technology*, 2023 (*in review*)
30. Ameen Al Njjar, Dr Amit Sata **Fabrication and Characterization of Aluminum Oxide/Copper/Graphite Ceramic Cutting Tool Material Under Various Processing Conditions**, *International Journal of Engineering Materials and Technology*, 2023 (*in review*)
31. Kamar Mazloum, Dr Amit Sata **Exploring the Filling Related Defect in Vertical Centrifugal Castings for A413 and A356 Using 3D Transient Simulation**, *International Journal of Cast Metals Research*, 2023 (*in review*)

Book/Book Chapter

32. Kamar Mazloum, Dr Amit Sata **Quality Prediction in Vertical Centrifugal Casting Using Criterion Function, Book Chapter** in Book Titled *Industrial Transformation: Implementation and Essential Components and Processes of Digital Systems (CRC Press*, available on Taylor & Francis eBooks*)*, 2022

International Conference (Presented/Published)

33. Nabhan Yousef, Dr Amit Sata, **Intelligent Inspection Device for Investment Casting**, *Proceedings of 71st Indian Foundry Congress, The Institute of Indian Foundrymen*, *Indian Foundry Congress*, Greater Noida, 8-10 February, 2023
34. Jignesh Jani, Siddharth Jhala, Dr Deepika Mor, Dr Amit V Sata, **Extending Application of Computer Aided Manufacturing for Development of Microtia Grade III Prosthesis**, *Proceedings of International Conference on Innovations in Mechanical and Materials Engineering, MNNIT-Allahabad,* (India)**,** 4-6 November 2022
35. Nabhan Yousef, Chandrasinh Parmar, Dr Amit Sata, **Intelligent Inspection of Surface Defects in Metal Castings Using Machine Learning**, *Proceedings of 5th International Conference on Advances in Steel, Power and Construction Technology***,** Raigarh (India)**,** 15-17 June 2022
36. Jaspal Singh Virdi, Wei Peng, Amit Sata, **Extending Application of Variable Selection Using Random Forest (VSURF) Technique in the Prediction of Mechanical Properties in Investment Casting**, *Proceedings of the 8th International Conference on Modeling and Simulation of Metallurgical Processes in Steelmaking (STEELSIM 2019),* Toronto, Ont., Canada, 13–15 August 2019

37. Jaspal Singh Virdi, Dr Wei Peng, Dr Amit Sata, **Feature Selection with LASSO and VSURF to Model Mechanical Properties for Investment Casting**, *Proceedings of 2nd International Conference on Computational Intelligence in Data Science (ICCIDS-2019)*, Chennai, 21-23 February, 2019
38. Dr Himanshu Khandelwal, Dr Amit Sata, Dr B Ravi, **Bayesian Inference Based Optimization of Process Parameters for Chemically Bonded Molding System**, *Proceedings of 73rd World Foundry Congress*, Krakow, Poland, 23-27 September, 2018
39. Dr Amit Sata, Dr B Ravi, **Foundry Data Analytics to Identify Critical Parameters Affecting Mechanical Properties of Investment Castings**, *Proceedings of ASME 2017 IMECE,* Florida, USA, 3-9 November, 2017
40. Sata Amit, Ravi B, **Novel Bayesian Inference Based Approach to Identify Critical Parameters Affecting Mechanical Properties of Investment Castings**, *Proceedings of 72nd World Foundry Congress*, Nagoya, Japan, 22-24 May, 2016
41. Dr Amit Sata, **Foundry Data Analytics to Prevent Defects in Investment Castings**, *Proceedings of 64th Indian Foundry Congress, The Institute of Indian Foundrymen*, *Indian Foundry Congress*, Coimbatore, 29 - 31 January, 2016
42. Sata Amit, Ravi B, **Mechanical Property Prediction of Investment Castings using Artificial Neural Network and Multivariate Regression Analysis**, *Proceedings of 63rd Indian Foundry Congress, The Institute of Indian Foundrymen*, Greater Noida, 27 February - 1 March, 2015
43. M S Parmar, S G Baraiya, A V Sata, **Development of Criterion Function to Predict Shrinkage Porosity in Aluminum Alloy Supported by Solidification Simulation**, *Proceedings of 63rd Indian Foundry Congress, The Institute of Indian Foundrymen*, Greater Noida, 27 February - 1 March, 2015
44. K P Adhvaryu, A V Sata, **Comparative Evaluation of ANN and MVR for Prediction of Different Output Parameters of CNC Turning**, *Proceedings of International Conference on Advances in Materials and Product Design (AMPD 2015),* SVNIT Surat*,* 10-11 January, 2015
45. Sata Amit, Mane V V, Pandit H, Dabade U, **A Novel Web-based System for Casting Defect Analysis**, *Proceedings of 60th Indian Foundry Congress, The Institute of Indian Foundrymen, Bangalore*, 2-4 March, 2012
46. Mane V V, Sata Amit, Khire M Y, **New Approach to Casting Defects Classification and Analysis Supported by Simulation**, *Proceedings of 59th Indian Foundry Congress, The Institute of Indian Foundrymen*, Chandigarh, pp. 87-104, 11-13 February, 2011
47. Sata Amit, **Error Measurement & Calibration of Five Axis CNC Machine Using Total Ball Bar Device**, *Proceedings of International Conference & Workshop on Emerging Trends in Technology 2010 (ICWET 2010)*, Thakur College of Engineering & Technology, Mumbai, 26-27 February, 2010
48. Sata Amit, **Manufacturing of Medical Implants Using RP Technologies – A Review**, *Proceedings of International Conference on Advances in Mechanical Engineering (ICAME 2010)*, SVNIT Surat, 4-6 January, 2010

National Conference (Presented/Published)

49. Nikunj Maheta, Dr Amit Sata, **Architecture of Cumulative Complexity Index for Investment Casting,** *Proceedings of National Conference on Foundry 4.0 – Opportunities and challenges***,** CSIR (CMERI) - Durgapur (India)**,** 24-25 February 2022
50. Dhaval Anadkat, Dr Amit Sata, **IoT Enabled Vertical Centrifugal Casting – Experimental Setup,** *Proceedings of National Conference on Foundry 4.0 – Opportunities and challenges***,** CSIR (CMERI) - Durgapur (India)**,** 24-25 February 2022
51. Divya Bhoraniya, Pradip Kanzaria, Dhaval Anadkat, Amit sata, **Development of Vertical Centrifugal Casting (VCC) Experimental Setup,** *Proceedings of National Conference on Excellence in Design, Manufacturing & Automation (NCEDMA-2018)*, DKTE-Ichalkaranji, April 26-27, 2018
52. Popat Mitesh A, Dr S S Khandare, Amit V Sata, **Experimental Investigations & Development of Empirical Model in Rotary Electro Discharge Machining Using Taguchi Method for Work-piece of HD11 And Brass Electrode**, *Proceedings of 4th National Conference on Emerging Trends in Mechanical Engineering (ETME 2011)*, GCET VV Nagar, March 18-19, 2011
53. Popat Mitesh A, Dr S S Khandare, Amit V Sata, **Application of Criterion Functions to Predict Shrinkage Porosity for Alloy ASTM B62 (Red Brass)**, *Proceedings of 4th National Conference on Emerging Trends in Mechanical Engineering (ETME 2011)*, GCET VV Nagar, March 18-19, 2011

54. Amit V Sata, **Advancement in Automotive Safety – Air Bag**, *Proceedings of National Conference on Recent Trends in Mechanical Engineering*, Datta Meghe College of Engineering, Navi Mumbai, August 28-29, 2010
55. Amit V Sata, **Multi Point Fuel Injection**, *Proceedings of National Conference on Emerging Technologies & Applications (ETA 2005)*, Saurashtra University, Rajkot, October 1-2, 2005
56. Amit V Sata, Bhavin Dabhi, Anjana Saparia, **Nitinol – A Metallurgical Boon**, *Proceedings of National Conference on Emerging Technologies & Applications (ETA 2005)*, Saurashtra University, Rajkot, October 1-2, 2005
57. Mitesh A Popat, Amit V Sata, **Reverse Pendulum**, *Proceedings of National Conference on Recent Advances in Mechanical Engineering (RAME 2004)*, KKWIEER-Nasik, January 16, 2004
58. Mitesh A Popat, Amit V Sata, **Hydrogen as an Alternative Fuel Source for Automobile**, *Proceedings of National Conference on Trends in Mechanical Engineering (TIME 2003)*, KITS-Warangal, 30th August 2003
59. Bhavin R Dabhi, Amit V Sata, **Bio-gas Power Plant for a City – A Case Study**, Proceedings of National Conference on Trends in Mechanical Engineering (TIME 2003), KITS-Warangal, 30th August 2003

Articles/Talk in Media

60. Dr Amit Sata, **Increased allocation to education budget in FY 2023-24 a positive trend**, published in theeducationtimes.in, 3 February 2023
61. Dr Amit Sata, **How various businesses responded to the Modi government's growth vision in the face of global challenges**, published in theeducationtimes.in, 3 February 2023
62. Dr Amit Sata, **Substituting Imports by Indigenous Innovation**, Budget 2023: Faster policies for startups are the need of the hour, published in Republicworld.com, 20 January 2023
63. Nikunj Maheta, Bharat Davda, Dr Amit Sata, **Estimation of Complexity Involved in Investment Casting Using Complexity Computation System (CCS)**, Foundry Talks, E-Magazine published by The Institute of Indian Foundrymen (IIF) – Western Chapter, pp. 12-14, January 2023 Edition
64. Dr Amit Sata, **Importance of Skill Enhancement**, talk on All India Radio - Rajkot, 04 July 2016
65. Dr Amit Sata, **Metal Industries of Saurashtra Region**, talk on All India Radio – Rajkot, 11 September 2015

References

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Marwadi University
Marwadi Chandarana Group

NOMINATION

Electronics & IT Department (LITD)

Committee Name : "Smart Manufacturing

Committee Number : LITD 34

Name of Organization : MARWADI UNIVERSITY - RAJKOT

Principal Member *

Dr : DR AMIT V SATA

Designation : PROFESSOR

General Interest : SMART Manufacturing, Metaverse Enabled Manufacturing

Address in full for Correspondence (with PINCODE): MARWADI EDUCATION FOUNDATION GROUP OF INSTITUTES, POST: GAURIDAD, RAJKOT – MORBI ROAD, RAJKOT 360003

Contact No. : +91 9825217702

Fax : -NA-

E-mail : amit.sata@marwadieducation.edu.in

*Please attach brief profile

MARWADI UNIVERSITY * RAJKOT *

Current Status: Request put up to Sectional Committee for consideration !

Member Details

1. Invite Id	6390879956
2. Name	Jagjeet Paul Singh
3. Email ID	mktg@orcan.com
4. Alternate Email	mktg@orcan.com
5. Mobile Number	9811043930
6. Address	plot no 51 industrial area, N.I.T, , HARYANA, India
7. Organization Name	Orcan products of india
8. Designation	Director
9. Other Relevant Information	i have been practicing Factory automation from last 27 years , doing PLC automation done projects for the vibration condition monitoring, Process automation projects ,Powerfactor management
10. Download Cv Docs	Click Here to download
11. Organization Authorization Letter	No document uploaded

Applied in following departments :

S No	Technical Department	Technical Committee	Status
1.	Electronics and Information Technology Department (LITD)	Electronic Measuring Instruments, Systems And Accessories (8)	Accepted
2.	Electronics and Information Technology Department (LITD)	Smart Manufacturing (34)	**Request put up to Sectional Committee for consideration**
3.	Mechanical Engineering Department (MED)	Mechanical Vibration And Shock Condition Monitoring (28)	Rejected
4.	Mechanical Engineering Department (MED)	Energy Management and Energy Savings Sectional Committee (39)	Rejected
5.	Electrotechnical Department (ETD)	Industrial Process Measurement And Control (18)	Rejected

Career Overview

Jagjeet paul Singh ,Male ,Age 55+ ,DOB 2 NOV1969

Contact details : Mobile :9811043930.email : 123@plcscadaforall.com

office Address : little systems ,plot no 51,industrial area N.I.T Faridabad 121005 india

BE Electronics & communications from Gogte institute of Technology ,belgaum1988 to 1992 from karnataka university

Work Experience of 31 years in field of Industrial Automation

Kumar Associates : a consulting service working towards repairs of PCB of CNC machines & PLC cards May 1992 to April 1993

Founded a automation company in 1993 by name of Little Systems

Started selling National PLC through their joint venture company bhartia cutler hammer in Faridabad Region from April 1993 to Oct 1997.

Started selling Messung PLC from 1997 to 2012 in various sectors ,like eicher tractors ,acme Furnance.

Training Attended

Festo Didactic in year 1994

Hydraulics Training at Eicher tractors during 1996

Started Selling Mitsubishi PLC and automation systems from 2012 till now

Prestigious Projects Done

Pipe bending machine in year 1992 at imperial auto industries

Grinding machines retrofitting at GKN driveshaft faridabad.

UV coating machine automation

Formaldehyde Plant automation

We did 11 plant where we had supplied the PLC ,MCC panels ,field instrumentation ,SCADA systems with SCADA PC to control the operations of formaldehyde production plant ,here we used Mitsubishi Process PLC to control Cascaded PID control ,Interfaced various equipments like Energy meter,Coriolis mass flowmeter ,VFD, Temperature & pressure transmitters ,level , flow of various process to achieve unprecedented plant efficiency in 24 X 7 plant operations for upto 8 months .

Condition Based Maintenance at Mahindra & Mahindra in year 2017 where we integrated various machine across the plant using network of 11 PLC,28 vibrations sensors ,35 pressure transmitters ,42 motor current & 48 Temperature sensors.All the sensor data was collected across the plant from various critical machines ,like paintshop,assembly lines ,testing equipment & industrial washing machines ,HMC machines and was monitored in real time using SCADA software.

Chiller & boilers monitoring at Samsung Electronics ,noida in year 2022

we had interfaced 9 chillers and 3 boilers in their plant for their ongoing day to day operations ,using PLC & SCADA.All chillers outlet temperature and inlet temperature was monitored. for boilers monitoring we monitored ,Water intake in liters,steam produced in kg,CNG consumed ,steam pressure ,water pressure .all this was monitored using our supplied PLC panels and SCADA software in their utility department & central control room

SMART city water distribution

We have executed in year 2022 smartcity scada project for faridabad city .here we collected the data from 97 remote sites using PLC,Flow sensors,level sensors ,energy consumed ,water distributed to various areas .All the above data was collected using GSM gateways and collated in ICCC Integraged command and control center at FSCL

Faridabad smart city litmited office using SCADA .

Production monitoring of Screw forging unit

we monitored the production of 11 screw inspection machine for the product quality ,production rate per hour ,per day ,per month.This was also done using PLC and SCADA

IOT project at elofic

we recently are executing a production and machine monitoring project in faridabad where we are interfacing the legacy italian PU poring machine 7 no being used by the client .the machines critical operations like temperature ,Relative humidity of raw materials ,their pumps running current ,and temperature are monitored to control the product quality and reduce the breakdown time & instances.

As a individual I am lover of constant learning process ,learnt various technologies ,like PLC Programming ,HMI programming ,VFD programming ,Servo motor & drive programming , Motion card programming ,SCADA programming ,Robot programming.

SQL database basics,Website Designing using word press .Designed my own website www.plcscadaforall.com .

I like to monitovate our team and my children to work towards value addition in industry and society then focusing on earning money.

Hobbies

Watching documentaries on engineering & new technologies ,Mega building as it motivates to do great work with immaculate precision .

Our Clients

Kelleys Engineering Works — Process & Cleaning Technology
MARUTI SUZUKI — Way of Life!
HONDA
KBEERA — ESTD - 1960
Kaushico — AN ISO 9001:2000 COMPANY
HIND HYDRAULICS — Manufacture with Confidence — AN ISO 9001:2008 CERTIFIED COMPANY
Multitec
CENLUB
Rapid Flow India Pvt. Ltd
Acme Process Heat Furnaces Pvt. Ltd.
POLYFORMALIN LIMITED
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naw New Allenberry Works
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सवीर — Since 1978
APL Machinery Pvt. Ltd.
ESCORTS

Applications

• Industrial Washing Machine • Welding •Lubrication Systems • Gear Hobbing • Induction Hardning • Pipe Bending • Pressure Die Casting • Rubber Moulding • Crimp Curving • Cut to Length • Flexo Printing • Green House Automation • Formaldehyde Plant • Fine Blanking • Boring • Band Saw • Grinding

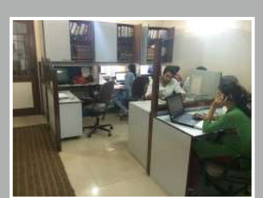
Our Works

We maintain modern & a well maintained office of about 1000 sq ft on the first floor and shop floor work area of about 1000 sq Ft on the ground floor in the same building.

Our work environment is well lit with natural sunlight & well ventilated offering ample of space to allow for fatigue free operations. Seprate area for panel assembly & panel testing leads to easy working on multiple projects by our technician & engineering team on any working day.

Our Team

Material stores meeting our day to day needs holds our monthly requirement of supplies of electrical & automation equipments allowing our staff to focus on their core work areas.

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Website: www.Ls.orcan.com, E-mail : orcan.paul@gmail.com

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Our Automation helps to

• Cuts manpower • raw material • energy
• cycle time • rejection

• Boost throughput • machine/operator safety • selling price • product innovation

We Do

- Maintain the secrecy of your knowhow
- Furnish all technical backup
- Save your time and money
- Add some extra safety & features

▲ Factory Automation

Process Automation ▶

About Orcan

An Expert handling the Expert tools could make a immense contribution to the applications success.

The reliability of our products, services & commitment is the key to creating delighted client. We challenge our limits to meet customer Expectations " Why Not ..". if the preposition is Ethical, Reliable & beneficial for all ..then why not.

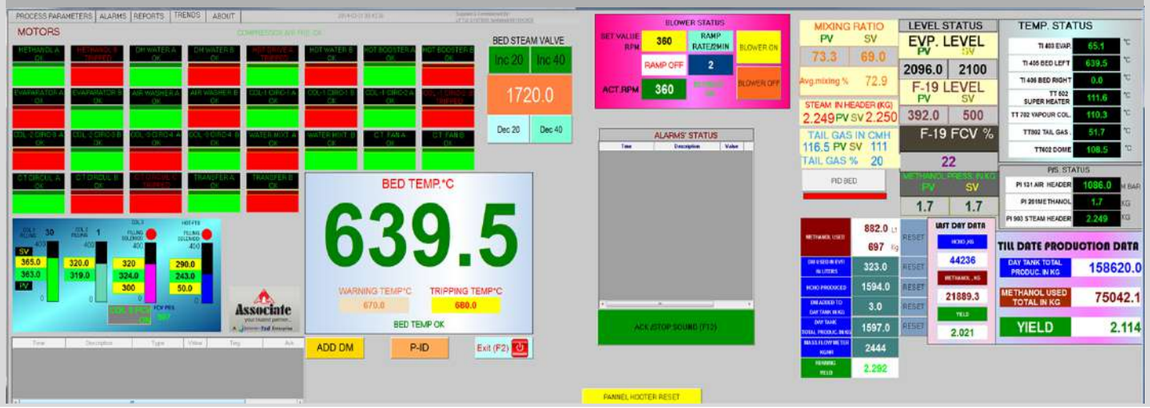
We supply, program & commission the PLC, HMI & VFD for Machinery manufacturers

We do the machine automation on Turn key basis with wiring of machine, supply of control panel & commissioing of the panel & programming to suit application needs

Retrofitting of OLD machine ,We do complete machine Electrical changeover from the contactor based to PLC, removing all the old wiring, push-buttons, etc putting the new PLC based control panel for trouble free, economical machine operations

SCADA Software

Fully-featured SCADA/HMI software. It can be used for a variety of automation projects, such as the chemical, automotive, building control, agriculture, etc. It supports distributed data acquisition, and supports redundant systems, so as to provide maximum flexibility and reliability.



Our Products

PLC & HMI

VFD

Field Instruments

Being in touch with the world class suppliers allows us an access to the cutting edge technologies & reliability in products.

Control Panels

Current Status: Under Process

Member Details

1. Invite Id	4660283555
2. Name	Rajendra Todalbagi
3. Email ID	rajendra.todalbagi@outlook.com
4. Alternate Email	rajendra.todalbagi@gmail.com
5. Mobile Number	9845025626
6. Address	Flat# 18, Suchitra Apartments, 62 Coles Road, Fraser Town, , KARNATAKA, India
7. Other Organization Name	Independent Business Consultant
8. Designation	Evangelist:Excellence
9. Other Relevant Information	Mr. Todalbagi is a Mechanical Engg. Graduate from Karnataka University with Gold Medal and has completed his Exec. MBA from IIM-Bangalore. He has close to 40 years of professional experience in Corporate (Sony, Toyota, Wipro) and academia and held leadership roles. His areas of expertise are Manufacturing, Quality, SCM, Lean Management & Digitalisation. He is a certified senior assessor for CII-Exim Bank Business Excellence Awards. He is also a TiE charter Member and mentors startups.
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11. Organization Authorization Letter	Click Here to download

Applied in following departments :

S No	Technical Department	Technical Committee	Status
1.	Electronics and Information Technology Department (LITD)	Smart Manufacturing (34)	**Pending**
2.	Management and Systems Department (MSD)	Quality Management (2)	**Rejected**
3.	Service Sector Department (SSD)	Supply Chain Management Sectional Committee (18)	**Request put up to Sectional Committee for consideration**

Rajendra Todalbagi

https://in.linkedin.com/in/rajendratodalbagi e-mail: rajendra.todalbagi@gmail.com

Mr. Todalbagi is a Mechanical Engineering Graduate from Karnataka University with Gold Medal. Further, he has done PG Diploma in Materials Management (PGDMM) and completed his Executive General Management Program (EGMP), from IIM-Bangalore. He has a rich and varied professional experience of thirty-five years with twenty-nine years in corporate covering wide industry spectrum like Electronics, Automobile, IT/Software followed by six years in academia. He has held leadership positions like, President, Division Head and Business Unit Head for fifteen years with P&L responsibility. He has worked on startup businesses with global brand like SONY, as well as lesser-known brand and steered them successfully. His core competency is Operations Management and driving business excellence with focus on execution. He has taught and mentored post-graduate management students, engaged in research, consultancy with a focus on start-ups and business transformation projects to achieve business excellence. He is a certified assessor of CII-Exim Bank Business Excellence Award modelled on EFQM Quality Award. He is also a Charter Member of TiE Mysore Chapter and served on Manufacturing & Technology Panel of CII Mysore as a member.

Key competencies and areas of contribution:

- Technology start-ups, ODC management and incubation support (Products & Services)
- Quality management frameworks, systems, and improvement tools (ISO, SEI-CMM, TQM, Six Sigma)
- Application of Lean management techniques and tools (Manufacturing & Services)
- Services management for delivery excellence and operational excellence
- Implementation and life cycle management of ERP package solutions
- SCM-Design, optimization and restructuring of Supply chains for value creation

Currently he is associated with an early stage FMCG startup Again Drinks as Senior Vice President Supply chain.

He was associated with SDM Institute for Management Development, Mysore, as an Associate Professor, and engaged in teaching operations management courses, research, and consulting for operational excellence.

Mr. Todalbagi was associated with Digital Juice Animations Pvt. Ltd., (Subsidiary of Digital Juice Inc, Florida) as President & COO - International Operations, which he joined as General Manager, India operations in May'04. He established the organization from ground up, to a 150-member team in a span of one year and successfully set up a product development and service delivery organization. This is his second successful Greenfield project, which he built from scratch in his career after Sony India Software Center.

Prior to this, he was associated with Sony India Pvt. Ltd., in setting up and running Software Division in 1997 from ground zero. With strong support from the Senior Management team in Singapore & Japan, he successfully established this offshore software engineering center primarily catering to the Sony group companies in the APAC region followed by Japan & Europe regions for their IT services and solution requirements in the Business Application space.

He spearheaded the India outsourcing initiative for IT services and solutions of Sony Corporation, Japan right from its inception in 1997. Sony India initially started as a 7-member team and grew to a team of a few hundred members in the Software Division. Over the course of time, Sony India Software Center was able to create significant value for SONY Corporation by establishing a world-class offshore development center and catering to Sony worldwide requirements effectively.

Prior to joining Sony India, Mr. Todalbagi has had a long stint with various Indian IT & Manufacturing business houses. He was last associated with **Wipro Infotech for eleven years** wherein he made significant contributions in the areas of developing and deploying Enterprise-wide Information Systems as Business enablers and led the Quality Initiative under TQM and Six Sigma apart from supply chain and operational roles. He also had an opportunity to work for Toyota in its first India project along with DCM while he started his career at Bharat Electronics.

Some of his educational & professional achievements / associations include:

- Faculty Development program (FDP 2018) from IIM-Indore with a focus on Research methodologies and contemporary pedagogical methods (April-May 2018)
- Certificate in Complex Project Management (CrtCPM) from Institute of Project Management Certification (IPMC) & International Center for complex Project Management (ICCPM), Australia-Oct 2012
- A research paper on '*Impact of technology on leadership style - analysis using Least Preferred Co-worker'* was presented at the "International Conference on Technology Management 2012 (ICTM 2012)" held at Indian Institute of Science, Bangalore (July 2012), which was accepted after peer review for presentation.
- Course in "Behaviourial Science thru' Psychometry" from CCE-IISc, Bangalore (Grade-Excellent) 2011
- Course in "Strategic Management" from CCE-IISc, Bangalore (Grade-Outstanding) 2011
- Certificate course in Finance (FNFE) from IIM, Bangalore with 3.44/4 CGPA and topped the batch-2005
- Awarded a Scholarship from Govt. of Japan under AOTS (Association for overseas Technical Scholarship) Scheme to attend a Program on "Information Technology for India" in Japan in December 2002
- Received third prize in the "National Young Materials Managers contest" conducted by IIMM in 1991
- Engineering Gold Medalist, Karnataka University, Dharwad, 1983

RAJENDRA TODALBAGI

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E-mail: rajendra.todalbagi@gmail.com

PROFESSIONAL WORK EXPERIENCE

AgainDrinks, Bangalore (Bachfun Private Limited) An early stage FMCG start-up (Since Jan 21)
Senior Vice President, Supply Chain

Designing and establishing a highly agile, scalable, efficient customer driven supply chain to service omnichannel customers and deliver value to all the stakeholders. Built core operations team, designed & implemented systems, and processes, sourced, and developed vendors, built manufacturing capabilities and distribution network, managing relationships and contracts, established inventory control, and driving execution excellence across the organization.

Shri Dharmasthala Manjunatheshwara Institute for Management Development, Mysore (Sept'14-Mar20)
Associate Professor

Engaged in teaching graduate students, research, consultancy, and corporate training. Research and consultancy areas include support startup businesses, business transformation and operational excellence through BPR, TQM, TPS and lean and six-sigma methodology.

As a member, Quality Assurance Council contributed significantly towards the journey of international accreditation ACBSP and EPAS from EFMD and actively involved in the process of accreditation. Also worked on development of rubrics for outcome based learning and digital transformation through implementation of Learning Management System (LMS) towards the creation of digital platform for knowledge delivery, online learning and evaluation.

Management Consultant & Quality Evangelist, Visiting Faculty at leading B-Schools (May'13- August'14)
Freelance, Kirloskar Business School, Symbiosis & St. Joseph's

Working with MSMEs to achieve more for less by improving overall Quality and Productivity of their business by eliminating waste and improving operating efficiency. Assisting through various techniques and tools like, Business Process Re-engineering (BPR), lean principles, developing MIS/management dashboards, adopting Quality Management Systems, and internalizing the culture of quality and customer centricity to achieve "Execution Excellence", customized and tailored to the needs of MSMEs. Also taught Operations Management subjects at leading B-Schools in Bangalore & Pune.

PROJECT MANAGEMENT ASSOCIATES, INDIA (www.pma-india.org) **(Oct'12 to May'13)**
Indian Member of International Project Management Association (IPMA)
Regional Director (South)

Responsible for driving the PMA mission of creating Project Oriented India. The mission was driven by advocacy, training and certification in the field of project management. This was accomplished by working with all the stakeholders in the society viz: Govt., PSUs, Private Sector across the Industry segments & Professional Educational Institutions covering Southern Region of the Country viz: Karnataka, Kerala, Tamil Nādu & Andhra Pradesh thru' chapter activities, seminars, symposiums and promoting sound project management methodology as the backbone for the growth of society.

DIGITAL JUICE ANIMATIONS PRIVATE LTD., BANGALORE (May'04 to March'12)
(A subsidiary of Digital Juice Inc)
President & COO

Reporting to CEO & Founder in Florida

Digital Juice is a SME Company, operating in the Media and Entertainment space catering to niche segments like broadcast networks, professional video editors, and print & publishing media. Develops multimedia digital content products covering motion graphics, still graphics and content management tools as software products and plug-ins around computer graphics and image processing with a team strength of around 200 members.

Key Achievements:

Establishing India operations from ground zero

- Established the company operation from scratch in a record time of less than 100 days including talent acquisition and kick-started production activity and hired a functional leadership team.
- Established factory set up for realizing physical products by replication and packaging for distribution and supply to parent company for onward distribution to end customers.

Transitioning various service engagements from US to India

- Successfully transitioned product development activities from US office to India center.
- Transitioned all the support functions viz: Finance, IS and tech support/customer support.

Conceptualized, designed, and implemented systems and processes to achieve execution excellence.

- Achieved execution excellence and brought predictability in product and service delivery by developing and implementing strong organizational processes and resource optimization.
- Developed metrics across the company for measurement of performance to establish control, drive efficiency, and create value on an ongoing basis and achieved an improvement of approx. 10% in operating efficiency on a continuous basis by improving productivity.
- Strategized & led transfer-pricing assessment and saved Rs 120 Mil. ($250K) for the company for FY07-08.
- Discharged Directorial responsibility for India company and managed Group Finance functions including US operations and acted as CFO for US operations handling banking relationship and worked with accountants on finalization of US books. Finalized and signed the books in 30 days after the end of the financial year for the US and within 21 days after the end of FY for India Company.

SONY INDIA PRIVATE LIMITED. **(Dec'97 to May '04)**

HEAD – India Development Center,

Sony Information System Solutions (Asia Pacific) Division,

SONY INDIA SOFTWARE CENTRE, SONY INDIA PVT. LTD,

Reporting to: MANAGING DIRECTOR IN INDIA /DIRECTOR IN SINGAPORE

Heading the Offshore Software Development Center with 100 plus Engineers engaged in Software Development and service activities in the domain of manufacturing, supply chain, warehousing & logistics, finance & OHQ operations.

Key Achievements:

- Established Offshore Development Center (ODC) from scratch with robust organizational processes and predictable service delivery with a vibrant team.
- Successfully steered the Center for ISO 9001: 2000 certification for Quality Management Systems by KPMG.
- Established a successful offshore services delivery model and transitioned large service engagements from Sony companies' world over to India, and improved service levels and customer satisfaction.
- Achieved a significantly high offshore service content of 75 ~80 % over the years
- Exceeded business targets by ~ 25 % in terms of services delivery and profitability, during FY 02.

WIPRO LTD. **(Dec' 86 to Dec'97)**

INFOTECH GROUP, PERIPHERALS & SYSTEMS DIVISION

DIVISIONAL INFORMATION SYSTEMS & QUALITY MANAGER

BUSINESS PLANNING MANAGER

COMMERCIAL MANAGER

Reporting to: PRESIDENT

Key Achievements:

- Customization and Implementation of ERP suite across the organization (Corporate, Factory, Warehouses, Regional and Branch offices) and achieved a centralized integrated Information System thereby accomplishing Customer to Vendor seamless Integration, to achieve higher business results using IT as a business enabler.
- Facilitated and drove six sigma projects for the division leading to improved quality and reduced cost.
- Managed business relationships with HP, Epson and introduced new profitable product lines for the division.
- Established effective supply chain management system for communications division and improved inventory turns and reduced turnaround time (TAT) for order fulfillment.
- Implemented MRP and Inventory control systems at factory.

DCM TOYOTA LTD. **(Apr'85 – Dec'86)**

ENGINEER - Production Planning and Control

Reporting to: Deputy Manager

Responsibilities included Production Planning, Scheduling, and Implementation of "KANBAN" System.

BHARAT ELECTRONICS LTD. **(Mar'83 – Apr'85)**

DEPUTY ENGINEER - Production Control

Project Planning, Material Planning, Process Planning, Scheduling, Co-ordination with Production and Purchase.

Educational Qualifications:

B.E. (Mech. Engg.) from Karnataka University, Dharwad (1983), 1st Rank to the University and Gold Medal

Executive General Management Program (EGMP) (2006) from Indian Institute of Management, Bangalore

Post Graduate Diploma in Materials Management (PGDMM) (2017) from Annamalai University, Annamalai Nagar

Language Proficiency:

English, Hindi, Kannada, Marathi, Japanese (elementary)

Date of birth: 22 May 1960