

Faculty Information:

| Sl. No | Information | | |
|--------|--|---|---|
| 1. | Name: Designation: Department Phone Number: Email Address: | Dr. Amarendra H J Professor Mechanical Engineering 9448066954 amarendrahj@gmail.com hja@mcehassan.ac.in |  |
| 2. | Qualification | B.E., M.Sc., Engg., (by Research), Ph. D., (IITR, Roorkee) | |
| 3. | Date of Join | 03-01-1994 | |
| 4. | Position Held | Professor | |
| 5. | Research Interest | Material Development and its evaluation | |
| 6. | Photo | | |

Teaching Experience

| Position Held | Nature of Appointment (Permanent/Temporary) | Duration | | University/Institution |
|--------------------------|---|------------|---------------------|------------------------|
| | | From | Level (PG/UG) To | |
| Lecturer | Permanent | 03-01-1994 | 02-01-2000 | MCE, Hassan |
| Sr. Grade Lecturer | Permanent | 03-01-2000 | 22-07-2005 | MCE, Hassan |
| Selection grade Lecturer | Permanent | 23-07-2005 | 22-07-2008 | MCE, Hassan |
| Associate Professor | Permanent | 23-07-2008 | 09-05-2017 | MCE, Hassan |
| Professor | Permanent | 10-05-2015 | Till date | MCE, Hassan |

Contributions in Abstract

| Sl. No | Contribution in respect of | Explanation |
|--------|---|---|
| 1. | Patents | 2 Applied |
| 2. | Industry Institute Collaboration - MOU | 02 in progress 01 Discussion is in progress |
| 3. | Publications | 23 (published) + 1 (under review) research items - out of which many articles are from UG students final year projects. - 15 research articles have been presented in international conferences (All articles are in SCI indexed Journals and all are peer reviewed) |
| 4. | Contribution to Professional/Community Development: Resource Person in Refresher Courses/Orientation Programme/Other Training | 13 till date |
| 5. | Candidates Working for Doctoral Degree under me | 04 - Research scholars |
| 6. | Referee for Journals | International Journals – more than 4 International Conference - more than 5 |
| 7. | Technical committee Member - International Conferences | More than 5 |
| 8. | Resource Person - Conference/workshop/Symposium | 05 |
| 9. | Organised- Organization of Programmes (Seminar/Workshops, Faculty Development/Staff development/Network/Programmes/symposiums/Seminars) | 26 - Programmes since 2013 |

| | | |
|-----|--|--|
| 10. | Attended FDP programmes | more than 40 (1/2/3/6/15 days programmes) till date |
| 11. | Students project awards | - best UG project award - 2015-16 - best UG project award – 2016-17 |
| 12. | KSCST fund for students projects | 01- Sanctioned -2016-17 |
| 13. | Research articles out of Students' final years project | 08 |

Contributions in Detail

1. Inventions Made and/or Patents Applied

| Year | Name of the Patent/Nature of Invention | Remarks |
|------|--|--|
| 2017 | "Metal Matrix Hybrid Composites" | Applied an Indian Patent (TEMP/E-1/16785/2017-CHE) |
| 2020 | "A modular system comprising processing and Controller unit to single out wireless Communication tech" | Applied an Indian Patent - Application number: 202041053076 dated 05-12-2020 - |

2. Industry Institution Interaction, Collaboration

I. eSya ENGINEERING PVT.LTD. Bangalore

| | |
|----|---|
| 1. | Development of 2 axis Laser marking machine – Successfully Completed 2018 |
|----|---|

II. HAMSHINE ELECTRONICS AND ENERGY SYSTEM, B. Katehalli Industrial Area, Hassan

| | |
|----|---|
| 1. | Design and development of customised Hydraulic press including Die for a power line copper connector – in progress |
| 2. | Analysis and evaluation of existing Heat Sink for MOSFITS – in progress |
| 3. | Design of Heat sink for series of MOSFITS and ventilation system for the Control and Power supply cabinet of Solar power charger unit – in progress |

III. FLUXGEN ENGINEERING TECHNOLOGIES Pvt. Ltd., Bangalore

| | |
|----|---|
| 1. | Applied an Indian Patent - Application number: 202041053076 dated 05-12-2020 - "A modular system comprising processing and Controller unit to single out wireless Communication tech" |
| 2. | Development of Magnetic Flow meter – in progress |
| 3. | SMART MCE CAMPUS will be used as field study/research facility campus for the product developed and patented by the FluxGen technologies, Bengaluru – in progress |

3. Ph.D., Supervision

| A. Awarded Candidates | | | |
|---|-------------------------|--|---------------------------------|
| Years | Name of the candidate | Title of the Ph. D. Topic | Whether the thesis is published |
| 2018 | Mr. Shashank Lingappa M | Melting of Metallic Materials Using Microwave Energy and its Characterization. | YES |
| B. Candidates Working for Doctoral Degree now | | | |
| Year of Registration | Name of the Candidate | Title of the Ph.D., Topic | Whether the thesis is published |
| 2014-15 | Mr. Prathap M S | Characterization and Erosion Behavior of Surface Modified Martensitic Stainless Steel. | No |
| | Mr. Karthik S | Development and Evaluation of Slurry Erosion Test Rig. | No |

| | | | |
|---------|--------------------------|--|----|
| 2015-16 | Mr. Natesh C. P. | Studies on tribological characteristics of formulated vegetable oils as cutting fluids in metal cutting operations | No |
| | Mr. Prasanna Kumar B. N. | Evaluation of slurry erosion test rigs | No |

4. Research Guidance: Master Degree

| Year | Name of the Academic programme | Number of students guided successfully |
|---------|--------------------------------|--|
| 2012-14 | M. Tech, (IAR) | 02 |

5. Details of Administrative Experience

| College/Department | Position Held* | Period | |
|--------------------|---|--------|-----------|
| | | From | To |
| College | Incharge – Implementation of ISO-IMS | 2020 | Till date |
| Member | To form Modalities/norms/regulations pertaining to Students' club activities | 2018 | 2019 |
| College | Finance Coordinator – TEQIP-III | 2017 | 2019 |
| College | Director -IIC | 2015 | 2019 |
| Member | Committee on Women Security, Welfare and Grievance Redressal and Proctor System | 2015 | 2018 |
| College | Dean SA | 2013 | 2015 |
| Convener | College Cultural Association | 2003 | 2009 |
| Department | Convener-Mechanical Engineering Association | 2003 | 2008 |
| Member | Editorial Board (College Magazine) | 2004 | 2007 |
| Convener | Cultural Association | 2003 | 2009 |
| Convener | Mechanical Engineering Association | 2003 | 2008 |

6. Chairmanship/Membership in University Academic Bodies (BOE/BOS)

| Name of the Academic Body | Position | University | Period | |
|--|---------------------------|--|---------|-----------|
| | | | From | To |
| BOE | Member | UG Autonomous programme, NIE Mysore | 2013-14 | 2014-15 |
| Academic Council | Member | UG Autonomous programme, MCE Hassan | 2013-14 | 2014-15 |
| BOS | Member Invite | UG Autonomous Programme, MCE Hassan | 2013-14 | 2014-18 |
| TEQIP-BOG | Member | UG Autonomous programme, MCE Hassan | 2014-15 | 2015-16 |
| BOE | Member | UG Autonomous programme, Mechanical Engineering, MCE Hassan | 2013-14 | Till date |
| Academic and Administrative Audit-AAA (External) | Member - Panel of experts | INTERNAL QUALITY ASSURANCE CELL (IQAC) - Academic and Administrative Audit-AAA (External) - SRI SIDDHARTHA INSTITUTE OF TECHNOLOGY, Maralur, TUMAKURU-572105 | 2020-21 | |

7. Lab facility – Developed by UG Students (as part of their UG project)

| Sl. No | Equipment Name | Remarks |
|--------|--|--|
| 1. | Slurry erosion test rig - 2013 | Extensively Used by UG, PG, Research Scholars for their projects |
| 2. | Heat treatment furnace - 2014 | Extensively Used by UG, PG, Research Scholars for their projects |
| 3. | Stir casting furnace -2016 | Extensively Used by UG, PG, Research Scholars for their projects |
| 4. | Refurbishment of Rolling machine -2017 | Used by UG, PG, Research Scholars for their projects (funded by Departmental allocated budget) |
| 5. | High speed cutting machine -2018 | Used by UG, PG, Research Scholars for their projects |

8. Contribution to Professional/Community Development:- Resource Person in Refresher Courses/Orientation Programme/ Other Training Programmes

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|-----|---|--|
| 1. | Industrial Tribology, Veermata Jijabai Technological Institute, (VJTI) Matunga, Mumbai VGTI, Mumbai - | Resource person, Invited Lecture |
| 2. | 23 rd -International Conference On Processing and Fabrication of Advanced Materials, (PFAM-23), 05-07, 2014 | Resource person, Reviewer |
| 3. | International Conference on Materials Engineering and Nano Sciences (ICMENS 2018), Hong Kong, January 13-15, 2018 | Member - Technical committee www.icmens.org |
| 4. | International conference on recent advances in Materials, Mechanical and Civil engineering-ICRAMMCE 2017" during 1-2nd of June 2017 in Hyderabad | Resource Person - Session Chaired |
| 5. | International conference on recent advances in Materials, Mechanical and Civil engineering-ICRAMMCE 2017" during 1-2nd of June 2017 in Hyderabad | Invited Lecture, Reviewer. |
| 6. | International conference on recent advances in Materials, Mechanical and Civil engineering-ICRAMMCE 2017" during 1-2nd of June 2017 in Hyderabad | Best paper |
| 7. | International Conference on Research in Mechanical Engineering Sciences RIMES-2017, December 21 – 23, 2017, Manipal Karnataka | Member - Technical committee, |
| 8. | Advances in Materials & Processing: Challenges & Opportunities, AMPCO - 2017, 30TH NOV – 3rd December 2017, IITR, Roorkee | Chaired a technical Session, Reviewer. |
| 9. | International Conference on Design, materials & Manufacture 201829 – 31, January 2018, National Institute of Technology Karnataka, Surathkal, INDIA | Chaired a technical Session at ICDEM Conference, and a Reviewer. |
| 10. | International conference on advanced composite materials 2018 (icacm 2018), 03-05 may 2018, Moscow, Russia | Reviewer. |
| 11. | TEQIP-II SPONSORED One Week Faculty Development Program on "Emerging Trends in Materials and Manufacturing Technology (ETMMT) 27 February – 03 March, 2017, Malnad College of Engineering, Hassan | Organiser, Invited Lecture, |
| 12. | TEQIP-II Sponsored National Symposium on "Slurry Erosion effects and its Mitigation in Hydraulic Turbines"23rd – 24th March, 2017, Malnad College of Engineering, Hassan | Organiser, Invited Lecture, |
| 13. | TEQIP-III Sponsored National FDP - VSSUT Burla Jharkhand on " Faculty Development Programme (FDP) Course in the area of "Recent Developments in Surface Coatings and its Application in Manufacturing (RDSCAM)" from 07th September to 11th September 2020 sponsored by TEQIP-III of VSSUT Burla. | Invited Lecture, |

9. Reviewer for International Journals

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|----|--|
| 1. | Metallurgical and Materials Transactions B |
| 2. | Journal of Thermal Spray Technology, ASM International |
| 3. | Journal of Mechanical Science and Technology |
| 4. | Journal of Material research express |
| 5. | Materials Today |
| 6. | IOP Science |

10. Awards/Prizes/Honours Received – NATIONAL/INTERNATIONAL

| Year | Details of Award/Prize | Contribution for which Award was Conferred |
|------|---------------------------------------|--|
| 2017 | Best Paper Award - First Place | An Article presented in the International Conference, ICRAMMCE-2017, |

11. List of Research Articles

| Sl. No. | Authors | Title | Publication | Vol | Pages | Year |
|---------|---|--|---|-----|-----------|------|
| 1. | S. Karthik, Amarendra H J; | Slurry Jet Erosion Test Rig: A review of Erosive Particles Induction Methods and Its Test Parameters | Journal of Bio-and Tribo-Corrosion | 6 | 101 | 2020 |
| 2. | Karthik, S; Amarendra, HJ; | Development of slurry jet erosion test rig– An aid to investigate erosion resistance of materials | Materials Today: Proceedings | | | 2020 |
| 3. | Natesha, CP; Amarendra, Hassan Jayaraj; Shashidhara, YM; | Studies on Drilling AISI 316L Using Formulated Pongam oil as Straight Cutting Fluid | Applied Mechanics and Materials | 895 | 194-199 | 2019 |
| 4. | Lingappa, Shashank M; Srinath, MS; Amarendra, HJ; | Melting of bulk non-ferrous metallic materials by microwave hybrid heating (MHH) and conventional heating: a comparative study on energy consumption | Journal of the Brazilian Society of Mechanical Sciences and Engineering | 40 | 1 | 2018 |
| 5. | Kiran, Ravi; Amarendra, HJ; Lingappa, Shashank; | Vision system in quality control automation | MATEC Web of Conferences | 144 | 3008 | 2018 |
| 6. | Lingappa, M Shashank; Srinath, MS; Amarendra, HJ; | On characterization of Microwave and Conventional Cast Bulk Brass | Transactions of the Indian Institute of Metals | 71 | 1759-1769 | 2018 |
| 7. | Shashank, ML; Srinath, MS; Amarendra, HJ; | Casting of commercially available bulk copper by microwave melting process and its characterization | Mater. Sci. Eng | 330 | 12087 | 2018 |
| 8. | Amarendra, HJ; Pratap, MS; Karthik, S; Kumara, MS Punitha; Rajath, HC; Ranjith, H; Shubhatunga, SV; | Combined slurry and cavitation erosion resistance of surface modified SS410 stainless steel | IOP Conference Series: Materials Science and Engineering | 330 | | 2018 |
| 9. | Lingappa, M Shashank; Srinath, MS; Amarendra, HJ; | Microwaves: A source of energy for melting of bulk zinc | Materials Today: Proceedings | 5 | 7782-7787 | 2018 |

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|-----|---|--|--|------|---------------|------|
| 10. | Lingappa, SM; Srinath, MS; Amarendra, HJ; | Feasibility study on development of metal matrix composite by microwave stir casting | AIP Conference Proceedings | 1943 | 20011 | 2018 |
| 11. | Amarendra, HJ; Hallalli, Gudappa B; Madhusudhana, Govindappara; Mahendra, HD; Athani, Mallikarjuna K; | Effect of cavitation inducers' apex angle on erosion resistance of SS304 in the slurry pot test rig | Materials Today: Proceedings | 5 | 17320 - 17324 | 2018 |
| 12. | Shashank Lingappa M., Srinath M. S., Amarendra H. J.; | Microstructural Investigation and Characterization of Bulk Brass Melted by Conventional and Microwave Processing Methods | Materials Science Forum | 890 | 356-361 | 2017 |
| 13. | Amarendra H. J.a*, Prathap M. S.b, Karthik S.c, Darshan B. M.d, Devaraj d, Girish P. C. d, Aruna V. T. d; | Combined Slurry and Cavitation Erosion Resistance of HVOF Thermal Spray Coated Stainless Steel | Materials Today: Proceedings | 4 | 465-470 | 2017 |
| 14. | Shashank Lingappa M, Srinath M. S., Amarendra H. J.; | Melting of 60Sn40Pb alloy using microwave energy and its characterization | Materials Today: Proceedings | 4 | 471-476 | 2017 |
| 15. | Lingappa, M Shashank; Srinath, MS; Amarendra, HJ; | Microstructural and mechanical investigation of aluminium alloy (Al 1050) melted by microwave hybrid heating | Materials Research Express | 4 | 76504 | 2017 |
| 16. | Lingappa, Shashank M; Srinath, MS; Amarendra, HJ; | An experimental investigation to find the critical (coupling) temperature in microwave hybrid heating of bulk metallic materials | Materials Research Express | 4 | 106521 | 2017 |
| 17. | Amarendra, HJ; Prathap, MS; Karthik, S; Abhishek, AM; Madhusurya, KC; Gujjargowda, S; Anilkumar, T; | Combined slurry and cavitation erosion resistance of HVOF spray coated SS 410 steel | Materials Science and Engineering | 149 | 12053 | 2016 |
| 18. | Sachin, BT; Pramod, HR; Amarendra, HJ; Srinath, MS; Shashank Lingappa, M; | Study on Confinement of Heat by Susceptor Layer for Microwave Processing of Materials | Proceedings | | | 2016 |
| 19. | Krishnaswamy S., Mahendra G., Jayantha K.S., H.J. Amarendra, B.Uma; | Make-in-MCE: A Differentiating Alumni Initiative in an Engineering College | Journal of Engineering Education Transformations | | | 2015 |
| 20. | Amarendra, Hassan Jayaraj; Chaudhari, Gajanan P; Nath, SK; | Cavitation and slurry erosion of aluminum in the slurry pot tester | Materials Science Forum | 736 | 218-222 | 2013 |
| 21. | Amarendra, HJ; Chaudhari, GP; Nath, SK; | Synergy of cavitation and slurry erosion in the slurry pot tester | Wear | 290 | 25-31 | 2012 |
| 22. | Amarendra, Hassan Jayaraj; Kalhan, Pradeep; Chaudhari, Gajanan Prabhakar; Nath, Sameer Kumar; Kumar, Shravan; | Slurry erosion response of heat treated 13Cr-4Ni martensitic stainless steel | Materials Science Forum | 710 | 500-505 | 2012 |

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|-----|--|--|-----------------------------------|-----|-------------|------|
| 23. | Kamlesh, Joshi; Amarendra, Hassan Jayaraj; Chaudhari, Gajanan Prabhakar; Nath, Sameer Kumar; | Effect of deposition parameters & Molybdenum percentage on Nickel- Molybdenum alloy coatings | Advanced Materials Research | 585 | 493- 497 | 2012 |
|-----|--|--|-----------------------------------|-----|-------------|------|

12. Organised:- Faculty Development/Staff development/Students development /Network/Programmes/Workshops/Seminars

| | Programme and Level (National, etc.,) | Date | Position Held | Remarks (Target group Group, Number, etc.,) |
|-----|--|--|---------------|--|
| 1. | DIKSUCHI (Exploring Inner Strength) | 3 rd -4 th Sep. 2014 | Convenor | Fresh Graduates |
| 2. | | 18 th -19 th Sep.,2014 | | |
| 3. | National – Recent Advances in Mateial and Manufacturing | 21-25 th Aug 2006 | Convenor | Faculty |
| 4. | National – FDP- Regresher course on conducting CAD/CAM lab for Technical staff of engineering colleges | -24, Feb 2007 | Convenor | Technical Staff |
| 5. | CII – Motivational lecture series for students | | Convenor | Students |
| 6. | MANTHAN – FKCCI | | Convenor | Students |
| 7. | Design Awareness and Innovation Programmes | 29 th Nov 2016 | Convenor | Students |
| 8. | “ Harvesting Solar Energy – An introduction to Technology ,Options and Opportunities “ | 30 th Nov 2016 | Convenor | Students |
| 9. | Business & Entrepreneurship opportunities in small scale industries organized by MSME, GOI. | 9 th Dec 2016 Held at Jewel Rock, BM Road, Hassan | Convenor | Students |
| 10. | Industry Expectations and Your Readiness | 19-1-2017 | Convenor | Students |
| 11. | Industrial Visits I&P Engineering- Visited Mysore | 20-21 st Jan 2017 | Convenor | Students |
| 12. | IMTEX2017, International Machine Tools Exhibition – BIEC, Bangalore | Jan 30 th 2017 | Convenor | Students |
| 13. | VLSI DESIGN: Challenges and Opportunities | 28-29 th Jan 2017 | Convenor | Students |
| 14. | Webinar Interactive Session program How to build your startup or shine in the first job | 16 th Feb 2017 2-3.30 PM | Convenor | Students |
| 15. | IOT International Exhibition | March 2-4 2017 | Convenor | Students |
| 16. | FDP on Geometric Dimensioning & Tolerancing | 10- 20 Feb – 25 th March 2017 | Convenor | Faculty |
| 17. | FDP on Advanced Material Characterization Techniques | 10- 20 Feb – 25 th March 2017 | Convenor | Faculty |
| 18. | Technology involved in Rapid Prototyping and Reverse Engineering | 50-20 th Feb 2017 | Convenor | Faculty |
| 19. | FDP on Emerging Trends in Materials and Manufacturing Technology | 50-27 Feb- 03 Mar 2017 | Convenor | Industry, Research, Faculty and Students |
| 20. | Geometric DIMENSIONING & Tolerancing | 05 days 20 – 24 th March 2017 | Convenor | Faculty |

| | | | | |
|-----|--|---|----------|--|
| 21. | Automation in Manufacturing | 05 days 20 – 24 th March 2017 | Convenor | Faculty |
| 22. | Advanced Material Characterization Techniques | 03 Days 13-15 th March 2017 | Convenor | Faculty |
| 23. | Symposium on Microwave Processing of Materials | 17-18 March 2017 | Convenor | Industry, Research, Faculty and Students |
| 24. | Slurry Erosion effects and its Mitigation in Hydraulic Turbines | 02 Days 23-24 March 2017 | Convenor | Industry, Research, Faculty and Students |
| 25. | Metrology Laboratory for Technical Staff | 02 Days 27 th – 28 th March, 2017 | Convenor | Technical Staff |
| 26. | Awareness program on IoT MAKE IN MCE INITIATIVE | 2016 – 2019 | Convenor | 200+600+450 First Year Students |

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