

## **K. MAHESH**

### **Education**

B.Tech, GRIET, Hyderabad  
M.S (By Research), IIT Madras  
Ph.D (Pursuing), IIT Delhi

**Email:** [mahesh108@rgukt.ac.in](mailto:mahesh108@rgukt.ac.in)

### **Professional Experience**

Assistant Professor, RGUKT Basar (Feb 2016 to Till date)  
Lecturer, RGUKT Basar (July 2011 to Feb 2016)  
Research Associate, GRIET, Hyderabad (Sep 2008 to July 2009)

### **Key Research Interests**

1. Metal Forming Processes
2. Welding
3. Powder Metallurgy
4. Physical Metallurgy

### **Administrative Positions/ Responsibilities**

1. Associate Dean Engineering, RGUKT Basar (August 2019 to December 2019)
2. Head, Department of Mechanical Engineering, RGUKT Basar (December 2016 to October 2019)
3. Faculty Coordinator, Research and Development (R&D) Cell (Engineering), RGUKT Basar, (March 2016 to Till Date)
4. Member of Board of Studies and Co-Convenor, Board of Studies, Department of Mechanical Engineering, RGUKT Basar, 2018 and 2019.
5. Committee Member for Campus Quarters Allocation, RGUKT Basar (2018 to 2020).
6. Core Committee Member, ANTAHPRAGYA, 2017 and 2018.
7. Member of University Digital Initiatives Committee, July 2017
8. Department Faculty Representative, ANTAHPRAGYA, 2016
9. Hostel Warden, RGUKT Basar, 2015

### **EVENTS ORGANIZED:**

1. **Convener**, one week online Short Term Course on “*Emerging Technologies in Processing of Advance Materials and its Characterization*”, 4<sup>th</sup> to 8<sup>th</sup> January 2021, RGUKT Basar
2. **Convener**, Engineers Day Celebrations, 15<sup>th</sup> September 2019, RGUKT Basar.
3. **Convener**, Train The Trainers a Faculty Development Program on “*Product Design Engineer*”, 3<sup>rd</sup> to 7<sup>th</sup> April 2018, RGUKT Basar
4. **Faculty coordinator** for Two day workshop on “*Mercedes Enginer Overhauling*”, Department of Mechanical Engineering, 2<sup>nd</sup> and 3<sup>rd</sup> February 2018, RGUKT Basar.
5. **Organizing Member** for Workshop on “*Mechanical Testing & Characterization of Materials*”, (WMTC – 2016), 14<sup>th</sup> & 15<sup>th</sup> March 2016, RGUKT Basar.
6. **Organizing Member** for National Workshop on “*Advances in X-Ray Powder Diffractometry & Scanning Electron Microscopy*”, (AXPDS – 2013), 15<sup>th</sup> & 17<sup>th</sup> July 2013, Rajiv Gandhi University of Knowledge Technologies, Hyderabad, Telangana State.

### **Resource Person/Guest Talks:**

1. “**Dissimilar Welding of Aluminium Alloys**”, One Week Faculty Development Program on *Advances in Materials & Composites*, Dept. of Mechanical Engineering, Andhra Loyola Institute of Engineering and Technology, 7<sup>th</sup> November 2017.
2. “**Formability Characteristics of a Material at Elevated Temperatures**”, One Week Faculty Development Program on *Advances in Materials & Composites*, Dept. of Mechanical Engineering, Andhra Loyola Institute of Engineering and Technology, 6<sup>th</sup> November 2017.
3. “**General Trends in Manufacturing**”, Two Week Faculty Development Program on *Current Trends in Materials and Manufacturing*, Department of Mechanical Engineering, CMR College of Engineering and Technology, 15<sup>th</sup> May 2017.

### **Faculty Development Program/ Short Term Courses Attended:**

1. “**Current Trends in Sheet Metal Forming**”, organized by Sheet Metal Forming Research Association (SMFRA) in association with Indian Institution of Technology Delhi, 18<sup>th</sup> and 19<sup>th</sup> December, 2020
2. “**Refresher Course in Mechanical Engineering**”, Online AICTE Recognized Faculty Development Programme, NITTTR, Chandigarh, 10<sup>th</sup> to 21<sup>st</sup> August 2020 (2 Weeks)
3. “**Materials Processing and Optimization**”, Online AICTE Recognized Faculty Development Programme, NITTTR, Chandigarh, 6<sup>th</sup> to 10<sup>th</sup> July 2020 (1 Week)
4. “**Optimization Techniques & Tools For Mechanical Engineers**”, Online Faculty Development Program, Department of Mechanical Engineering, Sreenidhi Institute of Science & Technology, 22<sup>nd</sup> to 27<sup>th</sup> June 2020 (1 Week)
5. “**Research and Development in Materials Behaviour, Processing and Characterization Techniques**”, 1<sup>st</sup> International Faculty Development Program, Dept. of Mechanical Engineering, GLA University in association with The Indian Institute of Metals (IIM), Mathura Chapter and Panjab University, 9<sup>th</sup> to 14<sup>th</sup> June 2020 (1 Week)

6. “**Recent Advances in Material Characterization**”, Online AICTE Recognized Faculty Development Programme, NITTTR, Chandigarh, 23<sup>rd</sup> to 28<sup>th</sup> May 2020 (1 Week)
7. “**Engineering Research Methodology**”, Short Term Course organized by University College of Engineering, Osmania University, 9<sup>th</sup> to 13<sup>th</sup> December 2019 (1 Week)
8. “**Fundamentals of Manufacturing Processes**”, NPTEL – AICTE Faculty Development Programme, Jul – Oct 2019 (12 Weeks)
9. “**Principles of Metal Forming Technology**”, NPTEL – AICTE Faculty Development Programme, Jul – Sep 2019 (8 Weeks)
10. “**Summer Faculty Research Fellow Programme**”, Continuing Education Programme, IIT Delhi, 13<sup>th</sup> May 2019 to 21<sup>st</sup> June 2019 (6 Weeks)
11. “**Orientation Course**”, Osmania University, July 2018 (4 Weeks)
12. “**Nano, Micro and Bulk Material Processing and Nanotechnology**”, Short Term Training Program organized by NIT Bhopal and GRIET at Hyderabad, 20<sup>th</sup> to 26<sup>th</sup> March 2017 (1 Week)
13. “**Product Design and Manufacturing**”, One Week Faculty Updation Program organized by C-DAC, Hyderabad in collaboration with Telangana Academy for Skill and Knowledge (TASK), 28<sup>th</sup> November 2016 to 2<sup>nd</sup> December 2016 (1 Week).

## Research Publications

### INTERNATIONAL JOURNALS

1. C. Anand Badrish, Nitin Kotkunde, Gauri Mahalle, Swadesh Kumar Singh, and **K. Mahesh**, “Analysis of Hot Anisotropic Tensile Flow Stress and Strain Hardening Behavior for Inconel 625 Alloy”, Journal of Materials Engineering and Performance, 2019, Vol. 28(12), pp 7537–7553, <https://doi.org/10.1007/s11665-019-04475-4>
2. MA Wahed, AK Gupta, V Sharma, **K Mahesh**, SK Singh and N Kotkunde, “Material Characterisation, Constitutive Modelling and Processing Map for Superplastic Deformation Region in Ti-6Al-4V Alloy”, The International Journal of Advanced Manufacturing Technology, 2019, Vol. 104, pp 3419–3438. <https://doi.org/10.1007/s00170-019-03956-z>
3. Tanya B, **K. Mahesh**, Nitin Muttill, B. Nageshwar Rao, J. Nagalakshmi and Swadesh Kumar Singh, “Characterization of plywoods produced by various bio-adhesives”, 5<sup>th</sup> Materials Today : Proceedings, 2017, Vol.4, pp 496-508. <https://doi.org/10.1016/j.matpr.2017.01.050>
4. Ajay Kumar V, K Pavani and **K Mahesh**, “Corrosion Analysis of Friction Stir-Welded Brass-Brass and Copper-Copper Samples”, Journal of Corrosion Science and Engineering, 2016, Vol. 19, 3, ISSN: 1466-8858.
5. **K. Mahesh**, Sankaran, S., and Venugopal, P., "Formability and Microstructural Characterization of Sintered Powder Metallurgical Preforms of Dual-Phase Steel," Materials

Performance and Characterization, 2013, Vol. 2 (1), pp. 105-119, ISSN 2165-3992, <https://doi.org/10.1520/MPC20120020>.

6. **K. Mahesh**, S. Sankaran and P. Venugopal, "Microstructural Characterization and Mechanical Properties of Powder Metallurgy Dual Phase Steel Preforms", Journal of Materials Science and Technology, 2012, vol.28 (12), pp 1085-1095. [https://doi.org/10.1016/S1005-0302\(12\)60177-7](https://doi.org/10.1016/S1005-0302(12)60177-7)
7. Swadesh Kumar Singh, **K. Mahesh** and Amit Kumar Gupta, " Prediction of mechanical properties of extra deep drawn steel in blue brittle region using Artificial Neural Network (ANN)", Materials and Design, 2010, vol.31 (5), pp 2288-2295. <https://doi.org/10.1016/j.matdes.2009.12.012>
8. Swadesh Kumar Singh, **K. Mahesh**, Apurv kumar and M. Swati, "Understanding Formability of Extra Deep Drawing Steel at Elevated Temperature Using Finite Element Simulation", Materials and Design, 2010, Vol. 31 (9), pp 4478-4484. <https://doi.org/10.1016/j.matdes.2010.04.049>
9. Swadesh Kumar Singh, Amit Kumar Gupta and **K. Mahesh**, " A study on the extent of ironing of EDD steel at elevated temperature", CIRP Journal of manufacturing Science and Technology, 2010, Vol. 3 (1), pp 73-79. <https://doi.org/10.1016/j.cirpj.2010.07.002>
10. Apurv kumar, P. Viswanath, **K. Mahesh**, M. Swati, P M Vinay Kumar, A. Abhijit and Swadesh Kumar Singh, "Prediction of Spring back in V – Bending and Design of Dies Using Finite Element Simulation", International Journal of Materials and Product Technology, 2010, Vol. 39 (3-4), pp 313-323. <https://doi.org/10.1504/IJMPT.2010.035804>

## INTERNATIONAL CONFERENCE

1. Swadesh Kumar Singh, PAPAN Varma, **K. Mahesh**, Vamsi Krishna, M. Harshal, Azharuddin, D. Ramesh and Srikesh, 2009, "Evaluation of friction at 200<sup>0</sup> C and experimental study on the extent of deformation in flow forming of EDD steel using deep drawing setup" International conference of The journal La Metallurgia Italiana on hot forming of steels and material properties Grado, Italy, 13-16 September.
2. Rahul Shashikant Sanghvi, M. Azharuddin, Sai Kiran. J.G, K. Srikesh, **K. Mahesh**, Amit Kumar Gupta and Swadesh Kumar Singh, 2009, "Study the Effect of Temperature on Material Properties of EDD Steel Using Artificial Neural Network (ANN)" International Conference on Advances in Mechanical Engineering, August 3-5, S.V. National Institute of Technology, Surat – 395 007, Gujarat, India, pp 1069-1072.
3. **K. Mahesh**, S. Sankaran and P. Venugopal, 2010, " Studies on Micro Alloy Dual Phase Steel through Powder Metallurgy Route", International Symposium for Research Scholars (ISRS-2010) on Metallurgy, Materials Science and Engineering, December 11-13, Indian Institute of Technology Madras, Chennai, India.

4. Md. Sohel, S. Uday Kumar, A.V.V. Anupama Sridevi, **K. Mahesh** and J. Nagalakshmi, "Effect of Thickness and Aging Time on Mechanical Properties and its Influence on Springback of Al 6061", International Conference on Emerging Trends in Mechanical Engineering (ICETiME-2016), September 23-24, at Faculty of Science and Technology, ICFAI Foundation of Higher Education, Hyderabad, Telangana, India, pp 41-43.
5. T. Nagaraju, L. Sagar, A. Ashok Kumar, J. Nagalakshmi, A.V.V. Anupama Sridevi and **K. Mahesh**, 2016, "Effect of Friction Stir Welding Parameters and Aging on 2014-6061 Al Dissimilar Welding", International Conference on Emerging Trends in Mechanical Engineering (ICETiME-2016), September 23-24, at Faculty of Science and Technology, ICFAI Foundation of Higher Education, Hyderabad, Telangana, India, pp 534-537.
6. G.D.N. Sri Lakshmi, Y. Ashalatha, A. Ashok Kumar, J. Nagalakshmi, A.V.V. Anupama Sridevi and **K. Mahesh**, 2016, "Effect of Aging and Dissimilar Welding of AA5083 and AA6082 on Mechanical Properties", International Conference on Emerging Trends in Mechanical Engineering (ICETiME-2016), September 23-24, at Faculty of Science and Technology, ICFAI Foundation of Higher Education, Hyderabad, Telangana, India, pp 625-629.
7. S. Ramakrishna, C. Sravani, B. Ravinder, S.S.L. Thirupathamma, Sk. Farzana, J. Nagalakshmi, **K. Mahesh** and A.V.V. Anupama Sridevi, 2016, "Influence of Bending Process Parameters and Heat Treatment Methods on Springback of AISI 1026 Steel", International Conference on Emerging Trends in Mechanical Engineering (ICETiME-2016), September 23-24, at Faculty of Science and Technology, ICFAI Foundation of Higher Education, Hyderabad, Telangana, India, pp 655-659.

## NATIONAL CONFERENCES

1. Swadesh Kumar Singh and **K. Mahesh**, 2009, "Evaluation of Friction in Deep Drawing Under Warm Conditions", National Conference on Recent Advances in Manufacturing Technology, Shastra, TN, March 14-15, pp 199-204.
2. Swadesh Kumar Singh, K. Suresh and **K. Mahesh**, 2009, "A note on design considerations in flow forming using deep drawing set up", National Conference on "Emerging Trends in Mechanical Engineering" July 1-2, 2009, SNIST, Hyderabad. pp 1 – 6.
3. Apurv kumar, P. Viswanath, **K. Mahesh**, M. Swati, P. M. Vinay Kumar, A Abhijit and Swadesh Kumar Singh, 2009, " Design of dies in V – bending using Finite Element Simulation", National Conference on "Emerging Trends in Mechanical Engineering" July 1-2, 2009, SNIST, Hyderabad. pp 72 – 78.