

**NAME:**MdIsrarEqubal

**QUALIFICATIONS:** PhD

**DATE OF BIRTH:**15/01/1981

**AREA OF RESEARCH/SPECIALIZATION:** Manufacturing Engineering

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**SUBJECTS TAUGHT:**MOS, Mat Sci, Manufacturing Technology, TD, RES



**ACHIEVEMENTS**

**PUBLISHED PAPERS IN REFEREED JOURNALS**

MdIsrarEqubal, DebasisMukerjee, AzharEqubal “A Full Factorial Design Based Desirability Function Approach for Optimization of Hot Forging of Vanadium Micro-Alloyed Steel” Metallography, Microstructure, and Analysis, (Accepted for Publication).

MdIsrarEqubal, MdAsifEqubal, AzharEqubal “Optimization of Hot Forging Parameters Using Taguchi Method and Grey Relational Analysis for AISI 1035 Steel” International Journal of Microstructure and Materials Properties, (Accepted for Publication).

MdIsrarEqubal, RajkumarOhdar, PinakiTalukdar, DebasisMukerjee “Hot forging behavior of medium carbon and microalloyed steel: A comparative study” International Journal of Microstructure and Materials Properties, Vol. 12, No. 1/2, pp. 1-11, 2017.

AzharEqubal, Md. IsrarEqubal, Anoop Kumar Sood, Md. AsifEqubal “A comparative study on electroplating of FDM parts” International Journal of Technology, Vol. 8, No. 5, pp. 328- 336, 2017.

AzharEqubal, Anoop Kumar Sood, M. AsifEqubal, M. IsrarEqubal “An Investigation on material removal rate of EDM process: A response surface methodology approach” International Journal of Mechanical, Aerospace, Industrial, Mechatronic and Manufacturing Engineering, Vol. 11, No. 4, pp. 845-850, 2017.

ParwezAlam, MdIsrarEqubal, Avtar Krishna “Die Stress Optimization using Quantum Behaved Particle Swarm Optimization” International Journal of Mechanical and Production Engineering Research and Development, Vol. 7, No. 1, pp. 95-104, 2017.

MdIsrarEqubal, ParwezAlam, RajkumarOhdar, MdSerfrazAlam “Studies on Lubrication Behavior of 35C8 Steel Using Ring Compression Test and Finite Element Simulation” International Journal of Mechanical And Production Engineering, Vol. 4, No. 11, pp. 4-8, 2016.

MdIsrarEqubal, ParwezAlam, RajkumarOhdar, Kumar AniketAnand, Md. SerfrazAlam “Effect of Cooling Rate on the Microstructure and Mechanical Properties of Medium Carbon Steel” International Journal of Metallurgical Engineering, Vol. 5, No. 2, pp. 21-24, 2016.

MdIsrarEqubal, RajkumarOhdar, AzharEqubal, Anoop Kumar Sood “Grey based Taguchi method for optimization of hot forging of connecting rod” International Journal of Manufacturing Research, Vol. 11, No. 1, pp. 89-109, 2016.

PinakiTalukdar, RajKumarOhdar, Balbir Singh, MdIsrarEqubal “Optimization of process parameters in hot forging of medium carbon micro-alloyed steel” Applied Mechanics and Materials, Vols. 813-814, pp. 563-568, 2015.

AzharEqubal, Md. IsrarEqubal, RajkumarOhdar “Isothermal Forging of Ti-6Al-4V Alloy - Flow Stress Evaluation and Optimization” International Journal of Scientific Research in Science, Engineering and Technology, Vol. 1, No. 5, pp. 235-238,

2015.

RajkumarOhdar, PinakiTalukdar, Md. IsrarEqubal "Evaluation of friction coefficient of 38MnVS6 medium carbon micro-alloyed steel in hot forging process by using ring compression test" Technology Letters, Vol. 2, No. 3, pp. 12-16, 2015.

MdIsrarEqubal, RajkumarOhdar, Balbir Singh and PinakiTalukdar "Forgeability Study of Medium Carbon Micro-Alloyed Forging Steel" International Journal of Chemical, Nuclear, Materials and Metallurgical Engineering Vol. 9, No. 3, pp. 391-395, 2015.

Md. IsrarEqubal, PinakiTalukdar, Vinod Kumar, RajkumarOhdar "Deformation Behavior of Micro-Alloyed Steel by Using Thermo Mechanical Simulator and Finite Element Method" Procedia Materials Science journal, Vol. 6, pp. 674 –681, 2014.

Md. IsrarEqubal, Randhirkumar, Mohammad Shamim, R.K. Ohdar, "A grey-based Taguchi method to optimize hot forging process" Procedia Materials Science journal, Vol. 6, pp. 1495 – 1504, 2014.

MdIsrarEqubal, RajkumarOhdar, Anoop Kumar Sood "Taguchi based simulation approach for optimization of closed die forging" International Journal of Conceptions on Mechanical and Civil Engineering, Vol. 1, No. 1, pp. 84-87, 2013.

Md. IsrarEqubal, PinakiTalukdar, RajkumarOhdar "Application of optimization techniques in metal forging- A review and reflection" International Journal of Scientific & Engineering Research, Vol. 4, No. 8, 2013.

RajkumarOhdar, MdIsrarEqubal, Vinod Kumar "Die Stress Optimization Using Finite Element and Taguchi Method" Materials Science Forum, Vol. 762, pp. 319-324, 2013.

☒ ☒ Md. IsrarEqubal, RajkumarOhdar "Forging Design and Development of Connecting Rod, Forgings Today" Vol. 3, No. 2, pp. 17-24, 2013.

☒ ☒ Md. IsrarEqubal, RajkumarOhdar, Md. NadeemBhat and Suhail Ahmad lone "Preform Shape Optimization of Connecting Rod Using Finite Element Method and Taguchi Method" International Journal of Modern Engineering Research, Vol. 2, No. 6, pp. 4532-4539, 2012.

☒ ☒ AzharEqubal, SankarBehera, Md. IsrarEqubal, RajkumarOhdar and S. N. Sinha "Prediction of Flow Stress of Ti-6Al-4V Alloy Forging: An Artificial Neural Network and Neuro-fuzzy Based Approach" International Journal of Science & Technology, Vol. 1, No. 2, pp. 57-64, 2011.

☒ ☒ RajkumarOhdar, SankarBehera, IsrarEqubal and AzharEqubal "Process Parameters Optimization for Isothermal Forging of Ti-6Al-4V Alloy using Taguchi Method and Artificial Neural Network" CiiT International journal of Automation and Autonomous System, Vol. 3, pp. 521-525, No. 11, 2011.

#### **PRESENTATIONS/PAPERS IN THE CONFERENCE PROCEEDINGS**

☒ ☒ PranavRavindrannair, Mir AkberMohsin Ali, Umesh G., MdIsrarEqubal "Parametric Analysis of Titanium Alloy Using Abrasive Jet Machining Process" International Conference on Latest Trends in New Era of Engineering, Science, Arts, management, Agriculture, Law, Pharmacy and Medical Science (LTNEESAMALPMS-18). 25-26, Feb 2018, Hyderabad, India

☒ ☒ Pranav R., MdIsrarEqubal , A RaghavendraBhat, K. Kishore "Multi Optimization of the Process Parameters of the WEDM of a Stainless Steel 440C component using Taguchi Grey relational analysis" 1st International Conference on Innovations in Mechanical Engineering (ICIME-2018). 5-6, January, 2018, GNIT Hyderabad, India.

☒ ☒ Kumar AniketAnand, MdSerfraJAlam, MdIsrarEqubal "Optimization of hot forging parameters using Taguchi method and Grey Relational Analysis for AISI 1035 Steel" 2nd International Conference on Mechanical and Manufacturing Engineering (ICMME 2017). 6- 7, April, 2017, Kanchipuram, Tamil Nadu, India.

- ☒ ☒ AzharEqubal, Anoop Kumar Sood, Md. AsifEqubal, Md. IsrarEqubal “An investigation on material removal rate of electrical discharge machining process: A Response surface methodology approach” 19th International Conference on Mechanical and Systems Engineering (ICMSE 2017). 07-08, February, 2017, Mumbai, India.
- ☒ ☒ MdIsrarEqubal, MdSerfrajAlam, RajkumarOhdar “Multi-objective optimization of hot forging process using genetic algorithms with finite element method” International Conference on Advances in Materials and Manufacturing (ICAMM '17). 19-21, January, 2017, National Institute of Foundry and Forge Technology, Ranchi, India.
- ☒ ☒ ParwezAlam, Md. IsrarEqubal, A. Bhattacharya, R.K. Ohdar “A grey-based Taguchi method to optimize preform in close die forging” International Conference on Technological Innovations in Engineering (ICTIE-2016). 15-16, December, 2016, Pune, India.
- ☒ ☒ MdIsrarEqubal, ParwezAlam, RajkumarOhdar, Md. SerfrajAlam “Studies on lubrication behavior of 35C8 steel using ring compression test and finite element simulation” International Conference on Recent Innovations in Science, Engineering, Technology and Management (ASAR-ICRISETM-2016). 17-18, September, 2016, Hyderabad, India.
- ☒ ☒ MdIsrarEqubal, RajkumarOhdar, PinakiTalukdar “Improving mechanical properties of hot forged part using grey taguchi method” International Conference on Materials Science & Technology (ICMTECH-16). 1-4, March, 2016, Delhi, India.
- ☒ ☒ MdIsrarEqubal, RajkumarOhdar, Balbir Singh, PinakiTalukdar “Hot forging behavior of medium carbon and medium carbon vanadium microalloyed steels: A comparative study” 4th International Conference on Thermo-mechanical Simulation and Processing of Steels, (SimPro'16). 10-12, February 2016, Research and Development Centre for Iron & Steel (RDCIS), Ranchi, India.
- ☒ ☒ MdIsrarEqubal, MdTalha, Balbir Singh, RajkumarOhdar “Effect of cooling rate on the microstructure and mechanical properties of medium carbon steel” 4th International Conference on Thermo-mechanical Simulation and Processing of Steels, (SimPro'16). 10-12, February, 2016, Research and Development Centre for Iron & Steel (RDCIS), Ranchi, India.
- ☒ ☒ Kumar AniketAnand, KartikNageswaran, Md. SerfrajAlam, Vinod Kumar, MdIsrarEqubal “Hot deformation behavior studies on medium carbon steel by thermo mechanical simulation and finite element method” 4th International Conference on Thermo-mechanical Simulation and Processing of Steels, (SimPro'16). 10-12, February, 2016, Research and Development Centre for Iron & Steel (RDCIS), Ranchi, India.
- ☒ ☒ Md. IsrarEqubal, RajkumarOhdar, PinakiTalukdar, Vinod Kumar “Parametric Optimization of Hot Compression Process of Medium Carbon Steel by Using Taguchi Method” National Conference on Thermo-mechanical processing of Steels & 5th Gleeble User Workshop India (GUWI-2015). 6-7, August, 2015, CSIR-National Metallurgical Laboratory, Jamshedpur, India.
- ☒ ☒ PinakiTalukdar, RajkumarOhdar, Balbir Singh, MdIsrarEqubal, “Optimization of process parameters in hot forging of medium carbon micro-alloyed steel” International Conference on Mechanical and Manufacturing Engineering (ICMME 2015). 2-3, April, 2015. Kanchipuram, Tamil Nadu, India.
- ☒ ☒ Md. IsrarEqubal, RajkumarOhdar, Balbir Singh, PinakiTalukdar, “Forgeability Study of Medium Carbon Micro-Alloyed Forging Steel” 17th International Conference on Mining, Material and Metallurgical Engineering (ICMME 2015). 29-30, March 2015, Singapore.
- ☒ ☒ Md. IsrarEqubal, P. Talukdar, Vinod Kumar, R.K.Ohdar “Deformation Behavior of Micro- Alloyed Steel by Using Thermo Mechanical Simulator and Finite Element Method” 3rd International Conference on Materials Processing and Characterisation (ICMPC' 14). 8-9, March 2014, Hyderabad, India.
- ☒ ☒ MdIsrarEqubal, Randhirkumar, Mohammad Shamim, RajkumarOhdar “A grey-based Taguchi method to optimize hot forging process” 3rd International Conference on Materials Processing and Characterisation (ICMPC' 14). 8-9, March 2014, Hyderabad, India.

- ☒ ☒ Md. IsrarEqbal, PinakiTalukdar, RajkumarOhdar, IrfanSamadWani “Evaluation of friction coefficient by experiment and FEM for medium carbon alloy steel in hot forging process” International Conference on Advances in Tribology (ICAT’14). 21-24, February 2014, Calicut , Kerala, India.
- ☒ ☒ RajkumarOhdar, MdIsrarEqbal, Vinod Kumar “Die Stress Optimization Using Finite Element and Taguchi Method” The 7th International Conference on Physical and Numerical Simulation of Material Processing (ICPNS’13). 16-19 June 2013, Oulu, Finland.
- ☒ ☒ Md. IsrarEqbal, PinakiTalukdar, RajkumarOhdar “Application of optimization techniques in metal forging: A review and reflection”. International Conference on global innovations in technology and sciences (ICGITS’13). 4-6, April 2013, Kotayam, Kerala, India.
- ☒ ☒ Md. IsrarEqbal, RajkumarOhdar, PinakiTalukdar “Parametric Optimization of Closed Die Forging Process Using Fem and Taguchi Method” 3rd International Conference on Thermo-mechanical Simulation and Processing of Steels (SimPro’12), 12-14, December 2012, Research and Development Centre for Iron & Steel (RDCIS), Ranchi. India.
- ☒ ☒ Md. IsrarEqbal, Anoop Kumar Sood, AarifHussain “Die Stress Optimization Using Quantum Behaved Particle Swarm Optimization” 3rd International Conference on Thermo-mechanical Simulation and Processing of Steels (SimPro’12). 12-14, December 2012, Research and Development Centre for Iron & Steel (RDCIS), Ranchi. India.
- ☒ ☒ Md. IsrarEqbal, RajkumarOhdar, Anoop Kumar Sood “Taguchi based simulation approach for optimization of closed die forging” The Second International Conference on Engineering Technology and Management (ICETM’12), 7-8, September 2012, Tirupati, Andhra Pradesh, India.
- ☒ ☒ Md. IsrarEqbal, RajkumarOhdar “Optimization of Preform in Closed Die Forging using Grey Taguchi Method” National Forging Seminar on Recent Trends in Metal Forming Technology and Heat Treatment (NFS’12). 27th September, 2012, Bangalore, India.
- ☒ ☒ Md. IsrarEqbal, RajkumarOhdar, Anoop Kumar Sood “Optimum Forging Preform Shape Design Using Definite And Taguchi Method” 27th National Convention of Production Engineers, National Seminar on Advancements in Manufacturing - Vision 2020, 25-26 May, 2012, BIT- Mesra, Ranchi, India.
- ☒ ☒ RajkumarOhdar, IsrarEqbal, AzharEqbal, SankarBehera “Process Parameter optimization for Isothermal Forging of Ti-6Al-4V alloy: A Soft Computing Approach” International Conference on Advances in Engineering & Technology (ICAET’11), 27-28, May 2011, Nagapattinam, Chennai, India.

#### **CHAPTER IN BOOK**

- ☒ ☒ AzharEqbal, MdAsifEqbal&MdIsrarEqbal. An insight on current and imminent research issues in EDM, Non-Conventional Machining in Modern Manufacturing Systems, (Accepted for Publication).
- ☒ ☒ AzharEqbal, MdAsifEqbal&MdIsrarEqbal (2017). Optimization techniques in Electric discharge machining process, Chapter 14 in Industrial Engineering and management practices (International Edition), Editor: Dr. Ashok G. Matani, pp. 269-280, International Research Publication House, Delhi, India, ISBN 978-93-84443-56-6.

#### **WORKSHOPS/ SHORT-TERM COURSES ATTENDED**

- ☒ ☒ TEQIP Workshop on “Concepts and Applications of the Finite Element Method” held at IIT Hyderabad, India, 18 June 2016.

Workshop on “Recent Trends in Welding Processes” sponsored by the Royal Academy of Engineering, United Kingdom held at NIFFT, Ranchi, India, 26th July 2016.

TEQIP Workshop on “Recent Trend in Manufacturing and Welding Technologies” held at C.I.T. Tatisilwai, Ranchi, India, 19-21 October 2016.

Short Term course on “Study on 2D and 3D Modeling in the Field of Mechatronics, Robotics and Engineering Applications” held at NIT Rourkela, India, 25-27 November 2016.

National Workshop on “Advances in Manufacturing Engineering” held at NIFFT, Ranchi, India, 17-18 March 2017.

### **HONOURS**

Research Assistantship, National Institute of Foundry and Forge Technology, Ranchi, India, 2011-2016.

Best Paper Award: International Conference on Advances in Engineering & Technology (ICAET), Chennai, India -2011.

### **STUDENT PROJECTS (UG & PG) SUPERVISED (IN LAST 3 YEARS)**

PG:00 UG: 02

### **ADDITIONAL RESPONSIBILITY:**

Department NAAC and NBA Co-cordinator

Member of B.Tech Major Project Review Committee

Member of B.Tech Technical Seminar Review Committee