

CURRICULUM VITAE

DR. U. ASHOK KUMAR

ASSISTANT PROFESSOR – (CONTRACT)

Department of Mechanical Engineering
University College of Engineering (Autonomous)
Osmania University Hyderabad
Hyderabad – 500007, Telangana State, India



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DOB: 02/06/1983

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Education:

- **Ph.D. [Mechanical Engineering] - 2021**
From Osmania University, Hyderabad, Telangana State, India.
- **M. Engg. [Advance Design and Manufacturing] – 2009**
From Osmania University, Hyderabad, India.
- **B.Tech [Mechanical Engineering] – 2006**
From J N T University, Hyderabad, India.

Field of Research:

- Micromachining , Micro drilling, Micro-EDM
- Conventional & Unconventional machining
- Advanced welding Techniques
- Surface Coating Techniques
- Design of Experiments & optimization
- Product Design and Development
- Engineering Research Methodology

Membership in Scientific & Professional Societies

- ISTE – Life Member No : 67861

Courses Taught in UG/PG

For UG

- CAD/CAM

- Non- Destructive techniques
- Metallurgy & Material science
- Engineering Graphics
- Industrial Engineering & Management
- Machine Tool Engineering Design
- Machine Design

For PG

- Engineering Research Methodology
- Advance casting and Joining Process
- Experimental techniques and data analysis
- Design of Experiments
- Material Science & Technology

Labs: -

- CAD/CAM,
- Engineering Workshop Practice,
- Manufacturing Process
- Computational Lab

List of Publications:

Books:

1. **U Ashok Kumar**, Dr.Laxminarayana Pappula “Optimization of Wire-EDM Process Parameters on TI-6AL-4V” , Lap Lambert Academic Publishing, ISBN: 978-620-0-22551.
2. **U Ashok Kumar**, Dr. P. Laxminarayana Pappula Experimental Study On Micro Channels Machining Of SS-316, Publisher: LAP Lambert Academic Publishing ISBN: 978 620-0-22545-0

Book Chapter

1. **U Ashok Kumar**, Dr. P. Laxminarayana, “Optimization of Process Parameters on EDM for Inconel 718” Recent Trends in Mechanical Engineering, Springer Part of the Lecture Notes in Mechanical Engineering book series (LNME), P.No.365-371,2020

Journal Publications

Publication in 2020

1. **U Ashok Kumar** , Dr. P. Laxminarayana “Design and Development of Face Shield by 3D Printing for the COVID-19 Epidemics”, International Journal for Research in Applied Science and Engineering, Vol.6, issue 4, P. No.380-384, 2020
2. **U Ashok Kumar**, Dr. P. Laxminarayana, “Influence of abrasive water jet cutting on glass fibre reinforced polymer (GFRP) composites”, Elsevier Materials Today: Proceedings, Vol.27, Part -2, P.No.1651-1654, 2020.

3. **U Ashok Kumar** , Dr. P. Laxminarayana, “Experimental investigation of process parameters for machining of Nimonic alloy 75 using wire-cut EDM”, Elsevier Materials Today: Proceedings, Vol.27, Part -2, P.No.1362-1368, 2020
4. **U Ashok Kumar** , Dr. P. Laxminarayana, “ Optimization of surface roughness and Kerf width by wire cut-electrical discharge machining on Inconel 625”, Elsevier Materials Today: Proceedings, Vol.27, Part -2, P.No., 1460-1465, 2020
5. **U Ashok Kumar** , Dr. P. Laxminarayana, “Micro drilling of glass fibre reinforced polymer composites”, Elsevier Materials Today: Proceedings,2020
6. **U Ashok Kumar** , Dr. P. Laxminarayana, “Experimental Investigation on Surface Roughness, Hardness and MRR of Stainless Steel 316L in EDM with Distilled water as electrolyte using Taguchi Method” , International Journal of Scientific Research in Science, Engineering , Vol.7, Issue 1,P.No.-274-280,2020
7. **U Ashok Kumar** , Dr. P. Laxminarayana, “Critical review on different burnishing processes of Ti-6Al-4V Alloy”, International Journal of Scientific Research in Science, Engineering , Vol.7, Issue 1,P.No.-266-273,2020

Publication in 2019

1. **U Ashok Kumar**, Dr. P. Laxminarayana “Experimental study on non-ferrous metals coating over mild steel using friction surfacing”, AIP Conference Proceedings, vol. 2200, Issue-1, P. No. 020057-1 to 020057-10, 2019.
2. **U Ashok Kumar** , Dr. P. Laxminarayana, “Design and development of mechanical vibrating filter for reclaiming coolant from Aluminium sludge”, Elsevier Materials Today Proceeding ,Vol. 19, Part 2, 2019, P.No 895-901, 2019.
3. **U Ashok Kumar** , Dr. P. Laxminarayana, “ Experimental Optimization of Process Parameters with Wire-EDM on Inconel 625”, International Journal for Research in Applied Science & Engineering, Vol. 7, Issue X, P.No.430.-437,2019
4. **U Ashok Kumar** , Dr. P. Laxminarayana “ Optimization of Kerf Width & Kerf Taper Angle on Glass Fiber Reinforced Polymer by Abrasive Water Jet Machining using Taguchi Approach”, International Journal for Research in Applied Science & Engineering, Vol. 7, Issue X, P.No. 445-450,2019
5. **U Ashok Kumar** , Dr. P. Laxminarayana, “ Optimization of Friction Surfacing Process Parameters on Low Carbon Steel Using Taguchi Approach”, Materials Science Forum Vol. 969, P.no.691-696, 2019
6. **U Ashok Kumar** , Dr. P. Laxminarayana “Optimization of Process Parameters on Kerf Width & Taper Angle on EN-8 Carbon Steel by Abrasive Water Jet Machining”, International Journal of Research in Advent Technology, E-ISSN: 2321-9637

Publication in 2018

1. **Ashok Kumar U**, Dr. P. Laxminarayana.”Multi response optimisation of EDM parameters for Micro channels machining of SS 316 with Taguchi – GRA. Materials today: proceedings 12/2018; 5(13):27028-27035., DOI:10.1016/j.matpr.2018.09.006
2. **Ashok Kumar U**, Dr. P. Laxminarayana “Experimental optimisation of process parameters on micro hole machining by Die sinker EDM”. DOI:10.11127/ijammc 2018.09.06
3. **Ashok Kumar U**, Dr. P. Laxminarayana “Optimization of Electrode Tool Wear in micro holes machining by Die Sinker EDM using Taguchi Approach”. Materials today: proceedings 01/ 2018; 5(1):1824-1831., DOI:10.1016/j.matpr.2017.11.281

Publication in 2017

1. **Ashok Kumar U**, Dr. P. Laxminarayana “Study of surface morphology on micro machined surfaces of AISI 316 by Die Sinker EDM”. Materials today: proceedings 12/ 2017; 4(2):1285-1292., DOI:10.1016/j.matpr.2017.01.149
2. **Ashok Kumar U**, Dr. P. Laxminarayana, “Study of Tool Wear Optimization in Micro Holes Machining of SS316 by Die Sinker Electrical Discharge Machining”. International Journal of Scientific Research in Multidisciplinary Studies E-ISSN: 2454-9312, Vol.3, Issue.7, pp.1-4, July (2017)
3. **Ashok Kumar U**, Dr. P. Laxminarayana, “ Optimization of process parameters of Material Removal Rate in Micro hole Machining by Die sinker EDM” IOSR Journal of Engineering (IOSRJEN) (p): 2278-8719, Vol. 07, Issue 07 (July. 2017), Volume1, PP 61-65, ISSN (e): 2250-3021.

Conference Proceedings:

1. **U.Ashok Kumar** , Dr. P. Laxminarayana, “Optimization of Process Parameters on Kerf Width & Taper Angle on En-8 Carbon Steel by Abrasive Water Jet Machining”. 3 rd National Conference on Recent Trends & Innovations In Mechanical Engineering -15th & 16th March 2019, Hyderabad, INDIA; 04/2019.
2. **U. Ashok Kumar** , Dr. P. Laxminarayana, “Effect of material removal rate on micro hole machining using Die sinker EDM”. Proceeding of Electrophysical Machining In Modern Industry - International scientific-practical conference of young scientists, graduate students and students, Perm, Russia; 03/2019
3. **U. Ashok Kumar**, Dr. P. Laxminarayana, “Tensile Behavior and Microstructural Characteristics of Friction Stir Welded Butt Joints of Titanium Alloys”. Material Science & Technology 2017, October 8–12, 2017 at the David L. Lawrence Convention Center in Pittsburgh, Pennsylvania, USA; 01/2018, DOI:10.7449/2017/MST_2017_37_44

4. **U. Ashok Kumar**, Dr. P. Laxminarayana, “Influence of Process Parameters on Surface Roughness of EN-31 by Water Jet Machining”. International Conference on Technological Advances in Mechanical Engineering (ICTAME 2017), AMET University, Chennai, India; 09/2017.
5. **U Ashok Kumar**, P Laxminarayana, M Ramulu, K Gangwar “Tensile Behavior and Microstructural Characteristics of Friction Stir Welded Butt joints of Titanium Alloys”, International Conference of Materials Science & Technology 2017 on Light Metals Alliance: Light Metals Technology 2017, during October 8-12, 2017 at David L. Lawrence Convention Center Pittsburgh, Pennsylvania USA
6. **U Ashok Kumar**, P Laxminarayana “Study of Micro machining of AISI 316 Die Sinker EDM using Taguchi Approach”, International Conference on Materials Science & Technology, 1-4, March, 2016, the VBRI Press in 2016, ICMTECH, DOI: 10.5185/icmtech.2016.
7. **U Ashok Kumar**, P Laxminarayana “Die Sinker Electric Discharge Machining in Micro Machining Applications” Advances in Refractory and Reactive Metals and Alloys (ARRMA-2016), during 27–29 January 2016, Mumbai, India Materials today-Elsevier Journal.
8. **U Ashok Kumar** ,P.Laxminarayana ,N.Aravindan: “Study of surface morphology on micro machined surfaces of AISI 316 by Die Sinker EDM” 5th International Conference on Materials Processing and Characterization (ICMPC 2016), during 12-13, March 2016, Materials, today-Elsevier Journal.
9. **U Ashok Kumar**, P.Laxminarayana : Optimization of Electrode Tool Wear in micro holes machining by Die Sinker EDM using Taguchi Approach”, International Conference on Processing of Materials, Minerals and Energy (July 29th – 30th) 2016, Ongole, Andhra Pradesh, India, .Materials today-Elsevier Journal
10. **U Ashok Kumar**, P Laxminarayana “Surface Modification of Metallic Materials by Laser Shock Peening”, National Conference on Recent advances in Mechanical Engineering, March 16-17, 2012, Department of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad.
11. A Parasharamulu, P Laxminarayana, K Buschaiah **U Ashok kumar**“Optimising the Control Parameters in Electrical Discharge Machining”, National Conference on Recent advances in Mechanical Engineering, March 16-17, 2012, Department of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad.
12. **U Ashok Kumar**, Sardar Jaspal singh, P. Laxminarayana “Experimental and Characterisation of Aluminum Over Mild Steel by Friction Surface Processing” National Conference on Frontiers in Mechanical Engineering (FIME-2013), August 9-31, 2013, Department of Mechanical Engineering, Maulana Azad National Institute of Technology, Bhopal, India.

Visits and Guest lectures delivered (India/Abroad):

1. Delivered an lecture talk on “ **Design of Experiments**” ,National webinar at CJITS, Janagoan, Telangana State on 24 June,2020

Awards:

1. Received **Young Scientist Award-2019** from 2nd-International Conference on Recent Trends in Engineering Science and Medicine-2019 organized by VDGGOOD Professional Association, Chennai
2. Received the "**Young Innovative Technological Engineer Award - 2017**". The Innovative Scientific Research Professional Malaysia presented the award for the Title “**Die Sinker Edm in Micro Machining Applications** “at an International Conference on "Innovative Technological Scientific Research Strategies in Science, Engineering and Management Applications and Medical Technology” jointly organised by University of Technology Mara and University of Malaya in Kuala Lumpur, Malaysia on 22 October 2017.
3. Paper Presented Title “**Experimental Investigation on the Effect of Combined Electrical discharge Machining with Ball Burnishing Process on the Condition of The Surface Integrity** ” Under “**Young Scientist Award Programme**” at Indian science congress conference held at University of Mumbai, Mumbai on 3-7th January ,2015
4. Paper Presented Title “**Friction Surfacing of Aluminium coating over Mild Steel**” under “**ISCA Best Poster Award Programme**” at Indian science congress conference held at University of Jammu, Jammu on 3-7th Febuary,2014
5. Awarded as “**Young Environmentalist Scientist - 2012**” in Technology for the Best Paper Presentation Title “Friction stir welding: an green environmental process" at “5th International Congress of Environmental Research” –ICER-12, held at University Malaysia Terengganu, Kuala Terengganu, Malaysia on November 22-24, 2012

Appreciation Award

1. Appreciation award for the services as an organizing committee member of the “**National Conference in Recent Advances in Mechanical Engineering**” held during 16th -17th March,2012 at Dept. Mech. Engg, UCE, Osmania University , Hyderabad , India
2. Appreciation award for the services as an organizing committee member of the “**Industry –Institute and Defence Labs Interaction**” held during 30th August, 2014 at Dept. Mech. Engg, UCE, Osmania University , Hyderabad , India
3. Appreciation award for the services as an organizing committee member of the “**National Conference in Emerging Trends in Mechanical Engineering**” held during 29-30th ,December 2014 at Dept. Mech. Engg, UCE, Osmania University , Hyderabad , India

4. Appreciation for the NBA work Done for the Dept. Mech. Engg, UCE, Osmania University in getting NBA For a period of 5 Years with effect from 5th August,2013 Hyderabad , India

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