




K. S. INSTITUTE OF TECHNOLOGY

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Faculty Name	Dr.B.S.AJAYKUMAR	
Designation	Professor	
Educational Qualification	B.E,M.E.Ph.D	
Experience in Years	Teaching:36 Years Industry :	
Areas of Interest	Manufacturing Process related subjects and management subjects	
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Educational Details

Examination/ Degree	College / University	Year of Passing
UG	R.V.C.E./BENGALURU	1980
PG	U.V.C.E./M.E(MANUFACTURING)/ .BENGALURU	1982
PhD	U.V.C.E/CUTTING TOOLS/ BENGALURU	2009

Publications

Journal Publications: A:International journals

1. .Nadish Roy, Sachin Keshavan, Chandrashekar A, B. S. Ajay kumar and M. Chowdegowda, Metal Inert gas welding behavior in Al-Zn Based aluminum alloy 7075, International Journal of Engineering and Manufacturing Science, ISSN 2249-3115, Vol. 2, 2012, Pp 22-30.
2. Chandrashekar A, Ananda kumar V, B. S. Ajay kumar and P. Raghothama rao, Investigation of the Structural and Mechanical Properties of Friction stir welded Aluminum Alloy, Asian Review of Mechanical Engg., (ARME), ISSN 2249-6289, Vol.1, No.2, 2012, Pp 41-44
3. Chetan Byrappa, Ajay Kumar B.S, M.V. Chandrashekar, Anupama H
“Development of PVDF-Ultrasonic Sensor Based Aircraft Landing Gear Control System” International Journal of Mechanical Engineering Research.ISSN 2249-0019 Volume 2, Number 3 (2012), pp. 261-268.

4. Yashpal D., Vijaya Kumar S. P., Chandrashekar A., B. S. Ajay Kumar and P. Raghothama Rao, Mechanical and Structural Characterization of GTAW Butt Joints of AA5083 Aluminum Alloy, International Journal of Engineering Research and Technology, Vol. 5, 2012, pp. 183-189.
5. Chetan Byrappa, B.S.Ajaykumar, Anupama.H – “Applications of PVDF” - International Journal of Mechanical Engineering & Robotics Research (ISSN 2278- 0149) IJMERR /Vol. II/ No. 1/ January 2013.
6. Mayur S, Pavan K. M, Sachin L. S, Chandrashekar A and B. S. Ajay Kumar, Effect of Welding Current on the Mechanical and Structural Properties of TIG Welded Aluminium Alloy AA-5083, International Journal of Mechanical Engineering and Research. ISSN No. 2249-0019, Vol. 3, No. 5, 2013, Pp. 431-438.
7. Nalaraj, B.S.Ajaykumar, H.C.Chittappa, Effect of gypsum on Mechanical Properties of ZA-27+ZRSIO₄ Alloy, International journal of mechanical Engineering research, ISSN 2249-0010 Vol.4, No.2(2014) PP 93-98
8. Chandrashekar A, B.S.Ajay Kumar and H. N. Reddappa, Friction stir welding: Tool material and geometry, Akgec International Journal of Technology, Vol. 6, No. 1, Pp-16-20, 2015.
9. Nalaraj, B.S.Ajaykumar, H.C.Chittappa, Dry sliding behaviour of zirconium Gypsum particles reinforced ZA-27 Alloy composites, Global journal of engineering research and technology .ISSN 2249-3107, Volume 5 No.1(2015) Pp 11-22
10. Ramakrishna Hegde, B.S.Ajaykumar, I.J.Kirthan, V.A.Girish Influence of Heat Treatment on Fatigue Behavior of Aluminum Silicon Carbide Graphite Hybrid Composite International Journal of Applied Engineering Research ISSN 0973-4562 Volume 11, Number 6 (2016) pp 4179-4183
11. Chandrashekar A., H. N. Reddappa, B. S. Ajaykumar, A Study of mechanical and micro structural properties of friction stir welded Aluminium alloy, Materials Today: Proceedings , Vol. 2, Issues 4–5, 2015, Pp 3491–3500
12. Chandrashekar A, B. S. Ajay Kumar and H. N. Reddappa, Mechanical, Structural and Corrosion behaviour of AlMg4.5/nano Al₂O₃ Metal Matrix Composites, Materials Today: Proceedings, 2017.
13. Ramakrishna Hegde, N.M.Shivaram, B.S.Ajaykumar, I.J.Kirthan Evaluation of Heat Treatment Effect on Fracture Behavior of Aluminum Silicon Carbide Graphite Hybrid Composite, International Journal of Applied Engineering Research ISSN 0973-4562 Volume 12, Number 5 (2017) Pp 605-610
14. Ramakrishna Hegde, N.M.Shivaram, B.S.Ajaykumar, I.J.Kirthan influence of Shotpeening on Fatigue behavior of Aluminium Siliconcarbide Graphite hybrid composite International Journal of Mechanical Engineering and Technology (IJMET), Volume 8, issue 6, June 2017, Pp 255-263

15. Manjunath S, B.S. Ajaykumar, Analysis the Effectiveness of Cryogenic Treatment through Roughness and Temperature Prediction Using Bonn Technique Journal of Mechanical Engineering Vol 14(2), 16-35, 2017,
16. Nagaraja C. Reddy, E.R. Babu, H.N. Reddappa, B.S. Ajaykumar Nano Indentation Studies on Ni₃Ti and Ni₃Ti+(Cr₃C₂+20nicr) Based Coatings Developed using Mechanical Alloying and HVOF Technique International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181 Vol 6 Issue 11, November-2017
17. Nagaraja C. Reddy ^{a, *}, B.S. Ajay Kumar ^a, H.N. Reddappa ^a, M.R. Ramesh Praveennath G. Koppad ^{c, **}, S. Kord HVOF sprayed NiTi(Cr₃c₂p20NiCr Coatings Microhardness and oxidation behaviour Journal of Alloys and Compounds [736 \(2018\) 236-245](#)
18. Shanawaz S Nadaf, Chandrashekar A, Ajay Kumar B. S, Influence of tool pin profile and rotation speed on properties of Friction stir welded AA5083-H111 aluminium alloy, Advancements in Mechanical Engineering and Technology, 1(1) 2018
19. Chandrashekar A, B. S. Ajaykumar, H. N. Reddappa and Manjunath Y. J., Influence of Number of Passes on Mechanical, Tribological Properties and its structure during Friction Stir Welding of Al-Mg alloy, Materials Physics and Chemistry, 2018.
20. Chandrashekar A., H. N. Reddappa and B. S. Ajaykumar, Effect of Pin Profile and Process Parameters on the properties of Friction stir welded Al-Mg Alloy, Materials Today: Proceedings, Vol. 5 No. 10, Pp. 22283-22292, 2018.
21. Mrudala Prashanth, B. S. Ajaykumar, N. J. Krishnaprasad, Effect of Cutting speed on Generation of heat at worktool interface of Copper based Silver and Brass alloys. International Journal of Mechanical and Production engineering research and development, ISSN (P): 2249-6890; ISSN (E): 2249-8001 Vol. 8, Issue 3, Jun 2018, 911-914
22. SANTOSH, MOHAMMED RIYAZ AHMED², MANJUNATHA L. H³, LOKESHA. , AJAY KUMAR. B. S⁵ & PRAVEEN DIGGE⁶ The performance Optimization of deep cryogenically treated M2 HSS tool in turning C45 Steel for hardness and MRR. International Journal of Mechanical and P Engineering Research and Development (IJMPERD) ISSN (P): 2249-6890 ISSN (E): 2249-8001 Vol. 8, Special Issue 6, Oct 2018, 903-910
23. G.T. Gopalakrishnaa , B.S. Ajay Kumar , K.R. Vishnu , S.D. Sundareshan and Kestur Gundappa Satyanarayana, Analysis of Dissimilar Metal Welding of EN19 and SS304L, Int. J. Vehicle Structures & Systems, 10(4), 246-250 International Journal of Vehicle Structures & System. 2018
24. Mrudala Prashanth, B. S. Ajaykumar, N. J. Krishnaprasad, Effect of Cutting speed on Generation of heat at worktool interface of Copper based Silver and Brass alloys. International Journal of Mechanical and Production engineering research and development, ISSN (P): 2249-6890; ISSN (E): 2249-8002 Vol. 8, Issue 3, Jun 2018, 911-914

25. SANTOSH, MOHAMMED RIYAZ AHMED², MANJUNATHA L. H³,
LOKESHA. M⁴, AJAY KUMAR. B. S⁵ & PRAVEEN DIGGE⁶ The performance
Optimization of deep cryogenically treated M2 HSS tool in turning C45
Steel for hardness and MRR. International Journal of Mechanical and P
Engineering Research and Development (IJMPERD) ISSN (P): 2249-6890
ISSN (E): 2249-8001 Vol. 8, Special Issue 6, Oct 2018, 903-910
- 26 Nagaprasad K S, Ajay Kumar B S etall Effect on Mechanical and Structural
of Rolled Aluminium Alloy 6082 by Using Friction Stir Processing with Silicon
Carbide as Particulate Matter International Journal of Applied Engineering
Research ISSN 0973-4562 Volume 14, Number 14 (2019) pp. 3301-3303
27. Raghavendra. S. Satish. N. Ajaykumar B.S., Dr. Girish T.R.
Effect of Deep cryotreatment on Hardness and Tensile strength of Aluminium
6061-Sic composites. International Journal of Applied Engineering Research
ISSN 0973- 4562 Volume 14, Number 15 (2019) pp. 3335-3339

B:National Conferences:

1. Chandrasekhar B.S.Ajay kumar, Mechanical and Micro structural characterization
of an aluminum alloy tungsten inert gas welded butt joint, National Conference on
Thrust Areas in Engineering, Global Academy of Technology, Bangalore, 20-21st
Jan 2012.
2. Chandrashekar A, Yuvaraj Naik, Babu E R, Preethi K H and B S Ajay kumar,
Comparison of Mechanical & Microstructural behavior of Tungsten Inert Gas
welded and Metal Inert Gas welded Aluminum alloy AA 5083, National
Conference on Emerging Trends in Mechanical Engg ETME'12, Rajarajeshwari
College of Engg., Bangalore, 24-25th Feb 2012, Pp 29-34.
3. Chandrashekar A, Babu E. R, B. S Ajay Kumar and P. Raghothama rao,
Mechanical and Metallurgical Properties of Friction Stir Welding of Aluminum
alloy AA5083, East West Institute of Technology, Bangalore, Developments and
opportunities in civil Engineering and Applied Sciences, DOCAM 2012, 18th -
19th May 2012.
4. Chandrashekar A, Anand kumar V, Chandramohan B. S, B. S Ajay kumar and P.
Raghothama rao, Evaluation of Mechanical and Structural properties of Friction
stir welded Aluminum Alloy, Sri Venkateshwara College of Engineering and
Technology, Tamilnadu, pp 148-150, 2012.
5. Arjun kamath, Rohith G, Chandrashekar A and B. S Ajay kumar, Mechanical and
Structural Characterization of an AA6061-T4 Tungsten Inert gas welded butt
joint, Sri Venkateshwara College of Engineering and Technology, Tamilnadu, Pp
160-163, 23-24th Aug 2012.

6. Chandrashekar A, Chandramohan B. S, Ananda kumar V and B. S Ajay kumar, Behavior of MIG welded aluminum alloy –AA 5083, National Conference on Recent Advances in Mechanical Engg. & their Impact on Indian Industries, Poojya Doddappa Appa College of Engineering and Technology, Gulbarga, 20-22nd Sep 2012.
7. H. N. Reddappa, A. Chandrashekar, B. V. Lingesh and B. S. Ajay Kumar “Sustaining Solid Waste Management System – Through Public Private Partnership (PPP) Model – A Case study for Sahakaranagar Layout” Proceedings of 8th Annual KSTA Conference on “Science and Technology for GenNext Urban Space”, held on 5th & 6th November 2015 at Bangalore Institute of Technology, Bengaluru.
8. B. S. Ajay Kumar, H. N. Reddappa, B. V. Lingesh and Chandrashekar A., “Use of Organizational Behaviour in Solid Waste Management – A Review” Proceedings of 8th Annual KSTA Conference on “Science and Technology for GenNext Urban Space”, held on 5th & 6th November 2015 at Bangalore Institute of Technology, Bengaluru.

C: International Conferences:In India:

1. Chandrashekar A, Ananda kumar V, B. S Ajay kumar and P. Raghothama rao, Investigation of the Structural and Mechanical Properties of Friction stir welded Aluminum Alloy, International Conference on Advancements & Futuristic Trends in Mechanical & Materials Engg., (AFTMME’12), Punjab Technical University, Punjab, 5-7 Oct 2012.
2. Chandrashekar A, Anand kumar V, B. S. Ajaykumar , Babu E. R, and H. N. Reddappa, Friction Stir Welding of Butt Welded Aluminum alloy AA5083, International Conference on Emerging Trends in Engineering and Technology, (ICETET’13), Marthandam college of Engg., Marthandam, Tamilnadu, 21-22nd Feb 2013.
3. Mayur S, Pavan K. M, Sachin L. S, Chandrashekar A and B. S. Ajay Kumar, Effect of welding current on the Structural and Mechanical Properties of TIG welded Aluminium Alloy 5083, International Conference on Advances in Mechanical, Automobile and Aerospace Engg., Jawaharlal Nehru University, New Delhi, India, 21st & 22nd Sep 2013.
4. Chandrashekar A and B. S. Ajay Kumar, Welding characteristics of Aluminium Alloy (5083) weldments, using GMAW & GTAW, International Conference on Advancements & Futuristic Trends in Mechanical & Materials Engg., (AFTMME’13), Punjab Technical University, Jalandhar, Punjab, 3rd - 6th Oct 2013.

5. Chandrashekar A, Arunachalam C, M. V. Sureshgowda and B. S. Ajaykumar, Microstructure And Mechanical Properties of Metal Inert Gas Welded Aluminium Alloy 5083, First International Conference on Emerging Trends in Engineering and Technology-2013, 4th -5th Oct 2013, Munnar, Kerala, India.
6. Chandrashekar.A, B. S. Ajaykumar and H. N. Reddappa, Friction Stir Welding of Aluminium Based Composite Materials - An Overview, International Conference on Recent Trends in Engineering and Technology (ICRTET-2014), Oxford Engg. college, Polur, March 1st 2014, Pp. 6-11.
7. Pavan K. M, Sachin L. S, Mayur S, Chandrashekar A, and B. S. Ajaykumar, Effect of Cryogenic treatment on the Mechanical and Microstructural properties of Aluminium Alloys - A Brief study, International Conference on Electrical, Electronics, Computer Science and Mechanical Engineering (ICEECSME), Pune, March 30th 2014.
8. Chandrashekar A, H. N. Reddappa and B. S. Ajaykumar, A Study of Mechanical and Micro Structural Properties of Friction Stir Welded Aluminium Alloy, 4th International Conference on Materials Processing and Characterization (ICMC-2015) organized by Department of Mechanical Engineering, Gokaraju Rangaraju Institute of Engineering and Technology -Bachupally, Hyderabad, Andhra Pradesh, India on 14-15th Feb 2015.
9. Chandrashekar A, H. N. Reddappa , B. S. Ajaykumar and M. Sreenivasa Reddy, Influence of Tool Profile on Mechanical Properties of Friction Stir Welded Aluminium Alloy 5083, International Conference on Energy, Environment and Engineering (ICEEE-2016) held on 29th February to 2nd March 2016, Coimbatore Institute of Technology, Coimbatore.
10. Chandrashekar A, H. N. Reddappa and B. S. Ajaykumar, Mechanical, structural and corrosion behaviour of AlMg4.5/Nano Al₂O₃ Metal matrix composites, International Conference on Advanced materials and Applications (ICAMA-2016) held on 15th-17th June 2016, at BMSCE, Bangalore
11. Chandrashekar A, H. N. Reddappa and B. S. Ajaykumar, Effect of Process parameters on Friction stir welded Al-Mg/Al₂O₃ nano composites, International Symposium on Joining of Materials, 27-28th April 2018, Tiruchirappalli, Tamilnadu, India
12. Santosh, Manjunath L. H, Ajaykumar B.S., Lokesha, A Review, Mechanical Properties of HSS Steel by deepcryotreatment, IOP Conference series: Material science and engineering, 2018

C: Outside India conferences

1. Vinayak N,Nilotpal Baneerjee,B.S.Ajaykumar,Kumar K.Gowda Aero structure interaction for Mechanical integration of laced LP compressor blades in a gas engine rotor Proceedings of the ASME 2016 Power Conference POWER2016 June 26-30, 2016, Charlotte, North Carolina
2. Vinayak N,Nilotpal Baneerjee,B.S.Ajaykumar,Kumar K.Gowda, Effect of Blade deflection angles,Pressure drop,flow and work coefficient's on Stage performance of a Gas turbine shrouded HP Compressor blade Proceedings of the ASME 2016 Power Conferenc POWER2016 June 26-30, 2016, Charlotte, North Carolina
3. Vinayak N,Nilotpal Baneerjee,B.S.Ajaykumar,Kumar K.Gowda Transient stress analysis and high cycle fatigue life estimation of a Gas Turbine shrouded HP Compressor blade. Proceedings of the ASME 2016 Power Conference,Power 2016,June Charlote,North Carolina
4. Chandrashekar A, H. N. Reddappa and B. S. Ajaykumar, International conference on advances in science and technology, 20-23rd January 2017, Regents international college, Bangkok, Thailand.
5. Vijaykumar,B.S.Ajaykumar ,Rudresha,30th Annual conference of the Production and operation management society,Washington D.C.02-06 March 2019

Awards

1.Recieved Best Teacher Award by Mathru yuvakasangha,Laggere,Bengaluru and YMCA Function at Kannadakala Bhavan,J.C.Road,Bengaluru on 01-03-2007

Other achievements:

1No of Ph.D Degree Awarded for Research Scholars under my guidance: '5' Nos.

2.Expert Lectures for the students at Skill development center(Recognized by Karnataka Government Skill Development Authorities),Nandidurga Road,bengaluru during March:2018

3.Books Published for Engineering students:

NAME OF THE FACULTY MEMBER	NAME OF THE BOOK	NAME OF THE PUBLISHER	YEAR OF PUBLICATION
B.S.AJAYKUMAR	FINANCIAL MANAGEMENT AND ACCOUNTING	POOJA PUBLICATIONS	MAY 1998
B.S.AJAYKUMAR.	MANAGEMENT AND INFORMATION SYSTEMS	POOJA PUBLICATIONS	NOV 1999
B.S.AJAYKUMAR	ENGINEERING ECONOMICS	SUBASH PUBLICATIONS	APR 2002

B.S.AJAYKUMAR	MANAGEMENT AND ENTERPRENEURSHIP	SUBASH PUBLICATIONS	SEPT 2008
Professional Membership			
1.The Indian society for Technical education:Membership no:LM0831 2.The Institution of Engineers(India): Membership no:F-11701 3. Indian Welding Society: Membership no:L-01152 and Vice President,Bengaluru Center 4. The Society of Innovative Educationalist and Scientific Research Professional: Membership no:F-171181950			
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