

FACULTY PROFILE

Name : **Rajashekar Kurahatti**



Designation : **Professor**
Department : **Mechanical Engineering**
Employee ID : **ME015T**
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Vidwan Id : **170018**

Qualification : **Ph.D.**

Professional Experience

Teaching experience : **24 years**

Administrative Responsibilities : **BOE Coordinator**

Teaching :

No. of Projects Guided

UG : 30

PG : 15

Research

Interest Area :
➤ Composites
➤ Smart materials

No. of Research Scholars

Pursuing : **06**

Awarded : **02**

Publications :

Books/Chapters

1. **R.V. Kurahatti**, A.O. Surendranathan, A.V. Ramesh Kumar and V. Auradi. "A comparative study on mechanical and tribological properties of epoxy composites filled with nano-ZrO₂ and nano-Al₂O₃ fillers" Techno-Societal 2016, DOI 10.1007/978-3-319-53556-2_56, 549-557.
2. Wadageri C.S., Kurahatti R.V., Goudar D.M., Hiremath V., Auradi V. (2021) The Effect of Two-Step Austempering on Abrasion Wear Characteristics of the Ductile Cast Iron. In:

Journals (with citations) :

- Prakash C., Krolczyk G., Singh S., Pramanik A. (eds) *Advances in Metrology and Measurement of Engineering Surfaces. Lecture Notes in Mechanical Engineering.* Springer, Singapore
- 1 R. V. Kurahatti, A. O. Surendranathan, S. A. Kori, Nirbhay Singh, A. V. Ramesh Kumar and SourabhSrivastav. "Polymer Nanocomposites in Defence Application" *Defence Science Journal*, 2010, 60 (5), 551-563. (Citations 121)
 - 2 R. V. Kurahatti, A. O. Surendranathan, S. Srivastava, N. Singh, A.V. Ramesh Kumar and B. Suresha. "Role of zirconia filler on friction and dry sliding wear behavior of bismaleimide nanocomposite." *Materials and Design*, 2011, 32 (5), 2644-2649.(Citations 46)
 - 3 R. V. Kurahatti, A. O. Surendranathan, S. A. Kori, A.V. Ramesh Kumar, Bablu Mordina and D. G. Mallapur. "Friction and dry sliding wear behaviour of Ni filled epoxy nanocomposite." *Tribology - Materials, Surfaces & Interfaces*, 2011, 5(2), 49-52. (Citations 8)
 - 4 R. V. Kurahatti, A.O. Surendranathan, Saurabh Srivastava,Nirbhay Singh, A. V. Ramesh Kumar and S. A. Kori. "Role of nickel filler on friction and dry sliding wear behavior of bismaleimidenanocomposite." *International Journal of Earth Sciences and Engineering*, 2010,4(6),1145-1150.
 - 5 R. V. Kurahatti, D. G. Mallapur, and K. Rajendra Udupa. "Influence of Ti, B, and Sr on Microstructure, Mechanical and Tribological Properties of as Cast, Cast Aged, and Forge Aged A356 Alloy – A Comparative Study." *International Journal of Chemical, Molecular, Nuclear, Materials and Metallurgical Engineering*, 2013, 7(6), 334-339. (Citations 3)
 - 6 R.V. Kurahatti, A. O. Surendranathan, A.V. Ramesh Kumar, V. Auradi, C. S. Wadageriand S. A. Kori. "Dry sliding wear behaviour of epoxy reinforced with nano ZrO₂particles." *Procedia Materials Science*, 2014, 5, 274-280. (Citations 22)
 - 7 R.V. Kurahatti, A. O. Surendranathan, A.V. Ramesh Kumar, V. Auradi, C. S. Wadageriand S. A. Kori. "Mechanical andtribologicalbehaviour of epoxy reinforced with nano-Al₂O₃ particles." *Applied Mechanics and Materials*, 2014, 592-594, 1320-1324. (Citations 6)
 - 8 Shreedhar Kolekar, R. V. Kurahatti, P. K. Prashanth, VikramKamble, Nitin Reddy. "Preparation of a silicon oil based magneto rheological fluid and an experimental study of its rheological properties using a plate and cone type rheometer." *Journal of Institute of Smart Structures and Systems*, March 2014, 3 (1), 19-24. (Citations 12)
 - 9 Shreedhar Kolekar, RajashekarKurahatti, Prashanth P.K, VikramKamble, Nitin Reddy. "Preparation of a silicon oil based magneto rheological fluid and an experimental study of itsrheological properties using a plate and cone type rheometer."

Journal of Institute of Smart Structures and Systems, September 2014, 3 (2), 23-26.

- 10 C.S. Wadageri, R.V. Kurahatti. "Review of enhancement in mechanical properties using austempered ductile iron (ADI)." *International Journal of Advanced Engineering Research and Science (IJAERS)*, February 2016, 3 (2), 61-67.
- 11 C.S. Wadageri, R.V. Kurahatti. "Improvement of mechanical properties of austempered ductile cast iron by a two-step austempering process" *International Journal of Advanced Research in Science and Engineering* February 2016, 5 (1), 425-431.
- 12 R. V. Kurahatti, A.O. Surendranathan, B. Mordina, P. Naik and V. Auradi. "Friction and dry sliding wear of bismaleimide filled with carbon nanotubes" *Tribology - Materials, Surfaces & Interfaces*, May 2016. DOI: 10.1080/17515831.2016.1182720.(Citations 1)
- 13 S. S. Bujari and R. V. Kurahatti. "A review on processing and tribological properties of metal matrix composites" *International Journal of Advancement in Engineering and Technology, Management & Applied Science*, April 2016, 3 (1), 302-310. (Citations 5)
- 14 S. S. Bujari and R. V. Kurahatti. "Microstructure and Tensile Behavior of B₄C Particulates Reinforced Al-4.5% Cu Alloy Composites" *American Journal of Materials Science*, 2016, 6(4A), 36-40. (Citations 2)
- 15 S. S. Bujari and R. V. Kurahatti. "Microstructure and Wear Behavior of B₄C Particulates Reinforced Al-4.5%Cu Alloy Composites" *IOSR Journal of Mechanical and Civil Engineering*, 2016, 13(4). (Citations 1)
- 16 Anand C Mattikalli and Dr. Rajashekar V. Kurahatti, "Analysis Of Annular Plate By Using Numerical Method", *IJISET - International Journal of Innovative Science, Engineering & Technology*, ISSN (Online) 2348 – 7968 Vol. 5 Issue 1, January 2018 (Citations 2)
- 17 C.S. Wadageri and R.V.Kurahatti, "Effect of two-step austempering on fatigue behavior of austempered ductile iron (ADI)", *SN Applied Sciences*, 2019, 1:300, <https://doi.org/10.1007/s42452-019-0307-9>
- 18 C.S. Wadageri and R.V.Kurahatti, "Influence of Two-Step Austempering Temperature and Time on Mechanical Properties of Austempered Ductile Iron", *Advanced Science, Engineering and Medicine*, Vol. 11, 1–6, 2019
- 19 Dayanand MG, Kurahatti RV and Rudrakshi GB, Study on Microstructure and Mechanical Behavior of Spray Deposited and Hot Pressed Hypereutectic Al–Si Alloy, *Journal of Material Science and Metallurgy*, In Press, 2019, Vol 1(1)

Conferences

1. **R. V. Kurahatti**, V. V. Kuppast and S. S. Balli. "Computer

based forecasting for a large number of items.” Proceedings of National Seminar on Emerging Trends in Manufacturing Systems, 18-19 January 2004, Punjab, p 250-258.

2. **R. V. Kurahatti**, D. G. Mallapur, V. V. Kuppast, and S. G. Saraganachari “Feature extraction from engineering two dimensional drawings for CAD / CAM Integration”, Proceedings of the National Conference on Recent Trends in Mechanical Engineering (RTIME-2004), 23rd-24th July 2004, Sangivani Rural Education Society’s College of Engineering, Kopargaon, Compiled by Prof. A. G. Thakur, Paper number: R-TIME / P / 233.
3. **R. V. Kurahatti**, S. A. Kori, A. V. Adhikari and A. O. Surendranathan. “Synthesis of surface treated granite particle reinforced polymer matrix composite.” Proceedings of 60th Annual Technical Meeting, Indian Institute of Metals, 13-16 November 2006, Jamshedpur, p 95.
4. **R. V. Kurahatti**, S. A. Kori, A. V. Adhikari and A. O. Surendranathan. “A study of mechanical properties of granite particle reinforced polymer matrix composite.” Proceedings of National Conference for Research Scholars, 12-13 March 2007, BEC, Bagalkot, p 109-110.
5. **R. V. Kurahatti**, S. A. Kori, A. V. Adhikari, A. O. Surendranathan. “Dispersion and interfacial adhesion of carbon nanotubes in polymer matrix: A review.” Proceedings of International Symposium on Advanced Materials and Processing, 29-30 October 2007, BEC, Bagalkot, p 219.
6. **R. V. Kurahatti**, S. A. Kori, A. V. Adhikari, A. O. Surendranathan. Enhanced mechanical properties of carbon nanotubes/epoxy nanocomposites – A review. Proceedings of International Conference on Metals and Alloys Past Present and Future, 07-10 December 2007, IIT Kanpur, p 144-145.
7. **R. V. Kurahatti**, A. O. Surendranathan, S. A. Kori, D. G. Mallapur, A. V. Ramesh Kumar and Saurabh Srivastava. “Effects of nanozirconia on the sliding wear of bismaleimide nanocomposite.” Proceedings of International Conference on Convergence of Science & Engineering in Education and Research, 21-23 April 2010, Dayanand Sagar Institutions Bangalore, p 110.
8. **R. V. Kurahatti**, A. O. Surendranathan, S. A. Kori and D. G. Mallapur. “Emerging recycling technologies for polymer composites.” Proceedings of Second International Conference on Recycling and Reuse of Materials, 5-7 August 2011, IMSE, Kottayam, p 31.
9. **R. V. Kurahatti**, K. Rajendra Udupa and D. G. Mallapur. “Influence of Ti, B and Sr on the tribological properties of forged A356 Alloy.” Proceedings of Second International Conference on

Recycling and Reuse of Materials, 5th-7th August 2011, IMSE, Kottayam, p 31.

10. **R. V. Kurahatti**, D. G. Mallapur and K. Rajendra Udupa “Influence of Ti, B and Sr on microstructure, mechanical and tribological properties of as cast, cast aged and forge aged A 356 alloy – A comparative study”. Proce. International Conference on Aerospace, Mechanical, Automotive and Materials Engineering, World Academy of Science, Engineering and Technology New York, USA.
11. **R. V. Kurahatti**, D. G. Mallapur and K. Rajendra Udupa “Influence of Ti, B and Sr on the tribological properties of forged A356 alloy”, Proceedings of International Conference on Aerospace, Mechanical, Automotive and Materials Engineering (ICAMAME-2013), 05th - 06th June 2013, organised by World Academy of Science, Engineering and Technology, New York, USA.
12. C. S. Wadageri, **R. V. Kurahatti**, Improvement of mechanical properties of austempered ductile cast iron by a two-step austempering process 3rd International Conference on Recent Innovations in Science, Engineering and Management, ICRISEM-16, ISBN: 978-81-932074, Sri Venkateswara College of Engineering and Technology, Srikakulam, Andhra Pradesh, 27th February 2016
13. Anand C Mattikalli and Rajashekar V. Kurahatti, “Finite Element Analysis Of Free Vibration Of An Annular Plate” in International Conference on Design, Materials & Manufacture (IcDeM 2018) at National Institute Of Technology Karnataka, Surathkal Mangalore DK-575025, Karnataka January 29-31, 2018

Invited Talks

- :
1. Presented a talk on “Mechanical and tribological properties of epoxy and bismaleimidenanocomposites” in a two daysworkshop on “Composites and their applications” held during 14-15 March, 2014 in BEC Bagalkot
 2. Presented a talk on “Mechanical and tribological properties of epoxy and bismaleimidenanocomposites” in a four daysworkshop on “Recent trends in composite materials” held during 9-12May, 2014 in Basavakalyan Engineering College, Basavakalyan
 3. Presented a talk on “Role of nanoparticles on the wear behavior of polymer nanocomposites” in a faculty development program on “Advances in materials science and its applications” held during 23-27 June, 2014 in BEC Bagalkot
 4. Presented a talk on “Processing of plastics” for final year students of BVVS Polytechnic Bagalkot on 29-8-2016.

Events Organized

- :
- Workshops conducted:**
1. Two days faculty development program on “Composites and Their Applications” during 14-15 March, 2014 in BEC Bagalkot

Technical talks presented:

5. Presented a talk on “Mechanical and tribological properties of epoxy and bismaleimidenanocomposites” in a two daysworkshop

- on “Composites and their applications” held during 14-15 March, 2014 in BEC Bagalkot
6. Presented a talk on “Mechanical and tribological properties of epoxy and bismaleimidenanocomposites” in a four daysworkshop on “Recent trends in composite materials” held during 9-12May, 2014 in Basavakalyan Engineering College, Basavakalyan
 7. Presented a talk on “Role of nanoparticles on the wear behavior of polymer nanocomposites” in a faculty development program on “Advances in materials science and its applications” held during 23-27 June, 2014 in BEC Bagalkot
 8. Presented a talk on “Processing of plastics” for final year students of BVVS Polytechnic Bagalkot on 29-8-2016.

Training programs conducted:

1. A 3 days workshop on “Mechatronics Training Kit and Robotics Simulation Software”in BECBagalkot during 24th -26th September 2006.
2. A seminar on “Mechatronics”in BVVS PolytechnicBagalkot on 27th Sept. 2005.
3. Conducted training program on “Hydraulics and Pneumatics” at BEC-BOSCH Rexroth Regional Centre of Competence for Automation Technologies during 5-7 Oct. 2011, 4-6 Feb. 2012, 1-2, 8-9 Sept. 2012, 14-15, 21-22 Sept. 2013.
4. Served as resourceful facilitator in HRD training program in BEC Bagalkot conducted for I year BE/MBA/MCA students during 10-11th October 2015

**Conferences/ Symposiums/
Workshops/ Training
Programs Attended**

- i. Induction Training Program for Engineering Teachers at NIT Calicut 14 Feb – 6 Mar 2000
- ii. Recent Trends in Renewable Energy Sources at BEC, Bagalkot 3-15 Sep 2001
- iii. Advances in Casting and Welding Technology at BEC, Bagalkot 24 sep -6 Oct 2001
- iv. Processing of Composite Materials at BEC, Bagalkot 25 Aug – 7 Sep 2002
- v. Synthesis and fabrication of nanoceramics and components and their industrial applications at IIT Kharagpur 16 -27 January, 2006
- vi. Recent trend in applications of finite element analysis at BEC, Bagalkot 06-11 March, 2006
- vii. Recent trends in industrial engineering at BEC, Bagalkot 26- Feb -2 March 2007
- viii. Tribology - Past, Present and Future at BEC, Bagalkot 02-07 April, 2007
- ix. Material Development, Manufacturing and Characterization at BEC, Bagalkot 16-21 April, 2007

Workshops attended:

1. FESTO Didactic Seminar “Introduction to Pneumatics P111” from 13th to 17th February, 2006 in Bangalore

2. Pre-conference Workshop on “Bio- Micro- Electro- Mechanical Systems (BioMEMS) & Neuroelectronics” on July 27, 2005 at IISc Bangalore
3. National Workshop on “Intellectual Property Rights Studies” during 17th – 18th February, 2006 in BEC Bagalkot
4. Two days National Seminar on “Modern Sensors & Their Applications” during 17th –18th November 2006 in BEC Bagalkot
5. 30 days training on “Train the trainer” (on Hydraulics and Pneumatics) during 1st – 30th April 2010 in JSS College Mysore conducted by BOSCH-REXROTH
6. Two days workshop on “Effective Leadership for Excellence” during 8-9 February 2014 in BEC, Bagalkot