

Faculty Profile -

Dr. Bharath K N

Assistant Professor,
Department of Mechanical Engineering,
GM Institute of Technology, Davangere



Vision

To keep on learning and implementing the learning for improvement. And strive to be a dynamic epicenter of innovation and creativity dedicated to teaching, lifelong learning, professionalism, research and partnership with local and global communities.

About Me

Dr. Bharath K N working in Dept. of Mechanical Engineering, GM Institute of Technology, Davangere. He is working on Optimization and Characterization such as failure analysis, chemical analysis, flammability, etc. of Natural fiber and its composites. And had published more than 50 international and national - books, edited books, conferences and journal papers. Also he is editorial board member and reviewer for many international journals. He had received "YOUNG SCIENTIST" award from VGST (Govt. of Karnataka) and received funding of Rs. 4 lakhs. Also represented Karnataka state team and University team in National level and All-India University level Basketball tournaments.

Educational Qualifications

1	Ph.D. (Bio-Composite Materials), University BDT College of Engg. (VTU, Belagavi)
2	M.Tech. (Machine Design), University BDT College of Engg., Davangere
3	B.E. (Mechanical Engineering), University BDT College of Engg., Davangere

Professional Details

GMIT, Davangere	8 years
UBDTCE, Davangere	1 year

Funded Projects

"Seed money to YOUNG SCIENTIST for research award" (VGST, Govt. of Karnataka) for the project entitled "Development and Performance Analysis of Bio based fiber composites from Agricultural Byproducts for Engineering Applications". And received grant of Rs. 4.00 lakhs.

Project entitled "A Novel Approach For The Development Of Bio-Based Composite For Circuit Board Applications" form KSCST, Govt. of Karnataka in the year 2016-17.

Academic / Research Publications -

Book Published – 1

1. "Hybrid Natural Fiber reinforced Polymer Composites", LAP Publication, Germany (ISBN - 978-3-659-10391-9), May 2012.

Papers in Edited Books/Proceedings – 4

1. "Experimental Studies on Biodegradable Property of Natural Fibers Reinforced Urea Formaldehyde Composites", Proceedings of symposium on Multidisciplinary Research 2008, pp 7-14. ISBN- 978-81-909132-01.
2. "Mechanical Characterization of Polymer Matrix Composites with Sicp and Graphite Particulate Fillers", Proceedings of symposium on Multidisciplinary Research 2008, pp 50-58. ISBN- 978-81-909132-01.
3. "Design and Performance Evaluation of Hybrid Solar Still" International Conference on "Control, Automation, Communication and Energy Conservation -2009, 4th-6th June 2009, Perundurai, Tamil Nadu, INDIA. Scopus Indexed, published in IEEE Xplore Digital Library and also published in edited book of **ALLIED PUBLISHERS**.
4. "Solar Still Integrated with Flat Plate Collector". International Conference on Issues and Challenges in Energy Conversion and Management (ICEM – 2009) on Dec 18th - 20th, 2009 held at Banaras Hindu University, Varanasi, India. Published in **NAROSA PUBLICATION**.

International Journals: 19 (h-index – 5, i-10-index – 3, Citations – 81)

1. "ANOVA and Response Surface Methodology for the Optimization of Fracture Toughness parameters on Jute Fabric-Epoxy composites using SENB specimens", Materials Today (Scopus Indexed), Elsevier Publication. (Article in Press)
2. "Effect of Sodium bicarbonate on Fire behaviour of filled E-Glass Reinforced Epoxy Composites", Materials Science and Engineering, IOP Publications, Vol. 149 (1), 2016, pp 1 - 6.
3. "Optimization of Notch Parameter on Fracture Toughness of Natural Fiber Reinforced composites Using Taguchi Method", Journal of Materials Science & Surface Engineering, Vol. 3 (2), 2015, pp 244-248.
4. "Applications of Bio-Composite Materials based on Natural fibers from Renewable Resources – A Review", Science and Engineering of Composite Materials, De Gruyter Publication (Scopus Indexed).
5. "Fourier Transform Infra -red Spectroscopy and Chemical resistance of Untreated and Alkali Treated Coconut leaf Sheath Fiber Reinforced Polymer Composites", Journal of Applied Mechanics and Materials, Trans Tech Publications (Scopus Indexed), Vol. 766-767, 205-210, 2015.
6. "Characterization of natural fiber (sheep wool) - reinforced polymer-matrix composites at different operating conditions", Journal of Industrial Textiles, Sage Publication (Scopus Indexed), DOI: 10.1177/1528083714540698.
7. "Flammability Characteristics of Chemical Treated Woven Natural Fabric Reinforced Phenol Formaldehyde Composites", Procedia Material Science, Elsevier Publication, Vol. 5, pp. 1880 – 1886, 2014. DOI: 10.1016/j.mspro.2014.07.507. ISSN: 2211-8128.
8. "Evaluation of Tensile Behaviour of Sea Shell-Jute Fabric reinforced Composites", International Journal of Advanced Research in Mechanical and Production Engineering and Development, Vol. 3, Issue 1, pp

141 – 147, 2014, ISSN: 2320-7256.

9. "Influence of Filler Materials on Pinned Joints of Woven Glass Fiber Reinforced Epoxy Composites", *Journal of Composites and Biodegradable Polymers*, 2013, 1, 47-55.
10. "Effect of Alkali Treatment on Impact Behavior of Areca Fibers Reinforced Polymer Composites", *International Journal of Chemical, Nuclear, Metallurgical and Materials Engineering*, Vol. 7, No. 4, pp. 874 – 879, 2013, ISSN: 1307-6892.
11. "The Effect of Silicon Dioxide Filler on the Wear Resistance of Glass Fabric Reinforced Epoxy Composites", *Polymer Science and Technology*, Vol. 2, No. 4, pp 51-57, 2012; ISSN: 2277 – 7164.
12. "Thickness Swelling Behaviour Of Hybrid Natural Fiber Reinforced UF Composites", *Journal of Purity, Utility Reaction and Environment*, Vol.1 No.10, 2012, pp 517-524, ISSN: 2232-1179.
13. "Water Absorption Characteristics of Areca Fiber Reinforced Composites", *International Journal of Material and Biomaterial Applications*, Vol. 2, No. 2, pp. 12-14, 2012.
14. "Experimental Investigation of Thermal Properties of Areca Fiber Reinforced Phenol Formaldehyde Composites", *Journal of Advanced Materials (Scopus indexed)*, Volume 43, Issue 2, April 2011, ISSN: 10709789 2010.
15. "Impact and Hardness properties of Areca fiber – Epoxy reinforced Composites", *Journal of Materials and Environmental Science (Scopus indexed)*, 2011. Vol. 2, No. 4, pp 351-356. ISSN: 2028-2508.
16. "Adhesive Tensile and Moisture Absorption Characteristics of Natural Fibers Reinforced Urea Formaldehyde Composites", *IJRTE*, May 2009, Vol. 1, No.5, pp 60-62.
17. "Experimental Studies on Biodegradable and Swelling Characteristics of Natural Fibers Composites", *International Journal of Agriculture Sciences*, Volume 2, Issue 1, 2010, pp-01-04. ISSN: 0975-371.
18. "Solar Still Coupled With Solar Collector and Storage Tank", *International Journal of Research and Industry - Science and Technology*, Volume 1, pp 62-72, 2009. ISSN: 0975-2536.
19. "Moisture Absorption Characteristics of Areca/Maize Reinforced Hybrid Polymer. Composites", *Published in International Journal of Advanced Engineering & Application*, 2010, pp 207-211. ISSN: 0975 – 7791.

International Conferences: 23

1. "Effect of Sodium bicarbonate on Fire behaviour of filled E-Glass Reinforced Epoxy Composites", paper presented in International Conference on Advances in Materials and Manufacturing Applications, 14th –16th July 2016 at Amrita School of Engineering, Amrita Vishwa Vidyapeetham University, Karnataka, India.
2. "ANOVA and Response Surface Methodology for the Optimization of Fracture Toughness parameters on Jute Fabric-Epoxy composites using SENB specimens" paper presented on 23rd and 24th September 2016 in International Conference on Advanced Materials, Manufacturing, Management and Thermal Sciences [AMMMT – 2016], Siddaganga Institute of Technology, Tumkur, Karnataka, India.
3. "Optimization of Notch Parameter on Fracture Toughness of Natural Fiber Reinforced Composites Using Taguchi Method", paper presented in International Conference on Fatigue, Durability & Fracture Mechanics, 28-30th May 2015 at Indian Institute of Science (IISc), Bangalore.
4. "Differential Scanning Calorimetry Analysis of Treated and Untreated Coconut leaf Sheath Natural Fabric for Composite Reinforcement" paper accepted in International Conference on "Advances in Materials, Manufacturing and Application (AmmA - 2015)" at National Institute of Technology, Trichy (NIT-T).
5. "Fourier Transform Infra -red Spectroscopy and Chemical resistance of Untreated and Alkali Treated Coconut leaf Sheath Fiber Reinforced Polymer Composites" presented in International Conference on Advances in Materials and Manufacturing Engineering (ICAMME2014) on 19th and 20th December, 2014 at Chennai, India.
6. "Effect of Various Chemical Modifications on Single Fiber Tensile Test of CLS Fiber for Composite Reinforcement: An Optical Microscopic Analysis", presented in International Conference on Polymer

Composites on 19th and 20th December, 2014 at NIT-K, Surathkal.

7. "Flammability Characteristics of Chemical Treated Woven Natural Fabric Reinforced Phenol Formaldehyde Composites", presented in International Conference on Advances in Manufacturing and Material Engineering on 27th – 29st March, 2014 which was conducted by National Institute of Technology (NIT-K), at Surathkal, Karnataka.
8. "Evaluation of Tensile Behaviour of Sea Shell-Jute Fabric reinforced Composites" presented in International Conference on Latest Trends in Mechanical and Product Engineering" on 8th – 9th March, 2014 which was conducted in Chennai, Tamil Nadu.
9. "Thermal Degradation of Naturally Woven Fabric Reinforced Phenol Formaldehyde based Bio-Composites" presented in International Conference on Recent Advances Composite Materials" on 18th – 21st Feb, 2013 which was conducted by Indian Institute of Technology – BHU, at Panaji, Goa.
10. "Evaluation of the Effect of Weight Fraction on the Thickness Swelling Behaviour of Hybrid Natural Fibre Reinforced Urea Formaldehyde Composites" presented in International Conference on Recent Advances Composite Materials" on 18th – 21st Feb, 2013 which was conducted by Indian Institute of Technology – BHU, at Panaji, Goa.
11. "Investigation on mechanical and moisture absorption properties of areca fibers and maize powder reinforced urea formaldehyde composites", International conference on Emerging Research and Advances in Mechanical Engineering (ERA-2009), March 19th-21st 2009, held at Velammal Engineering College, Chennai, Tamil Nadu, India.
12. "A Study on Fatigue Behavior of Connecting Rod Using FEM", International conference on Emerging Research and Advances in Mechanical Engineering (ERA- 2009), March 19th-21st 2009, held at Velammal Engineering College, Chennai, Tamil Nadu, India.
13. "Experimental Investigation on Biodegradable and Swelling Properties of Natural Fibers Reinforced Urea Formaldehyde Composites", International conference on Advanced Manufacturing and Automation (INCAMA – 2009) Kalasalingham University, Tamil Nadu, 26th – 28th March 2009.
14. "Effect Of Moisture Absorption On Tensile Properties Of Sisp Filled Gfrp Composite Materials", International conference on Advanced Manufacturing and Automation (INCAMA – 2009) Kalasalingham University, Tamil Nadu, 26th – 28th March 2009.
15. "Experimental Investigation on Impact Property Of Polymer Matrix Composites With Sisp And Graphite Particulate Fillers" International Conference on Arts, Science, Management And Engineering, Goa, India, April 23rd - 25th 2009.
16. "Investigation On The Effect Of Hybridization On Bending Properties For Various Weight Fractions Of Natural Fiber Composites" ICAMB -2009, Vellore Institute of Technology, Tamil Nadu, INDIA.
17. "Experimental Investigation on Moisture Absorption Characteristics for Various Weight Fractions of Natural Fibres Reinforced Composites", International Conference on Recent Trends in Materials And Characterization (RETMAC – 2010), National Institute of Technology, Surathkal, Karnataka, India.
18. "Solar Still Integrated with Flat Plate Collector". International Conference on Issues and Challenges in Energy Conversion and Management (ICEM – 2009) on Dec 18th - 20th, 2009 held at Banaras Hindu University, Varanasi, India.
19. "Design and Performance Evaluation of Hybrid Solar Still" International Conference on "Control, Automation, Communication and Energy Conservation -2009, 4th-6th June 2009, Perundurai, Tamil Nadu, INDIA.
20. "A Double Slope Solar Still Integrated With Solar Collector and Storage Tank", ICAMB -2009, Vellore Institute of Technology, Tamil Nadu, INDIA.
21. "Solar Still coupled With Flat Plate Collector", International Conference on FFES- 2009 held at IIT Kharagpur, Dec 17th – 19th 2009.
22. "A Double Slope Solar Still Augmented With Flat Plate Collector and Storage Tank", International Conference on CONVERGENCE OF SCIENCE & ENGINEERING IN EDUCATION AND RESEARCH - 2010,

Dayananda Sagar College of Engg., Bangalore, India.

23. "Dry Sliding Wear Behavior of A356/Sicp-Gr Composites", International conference on Tribology of Automotive Systems, IIT – Delhi, India.

National Conferences: 12

1. "Effect of Grain Size on Compression and Hardness Properties of Rice Husk Reinforced Composite", presented in National Conference -2k17, 18th May 2017 at KIT, Tiptur, Karnataka and secured first place.
2. "Effect of Maize powder on Tensile property of Areca fiber reinforced UF composites", 5th National Conference on Plastic and Rubber Technology (POLYCON-2011), 25-26 April, 2011, SJCE, Mysore.
3. "Effect of Filler Materials on Mechanical Properties of Polymer Matrix Composites", National conference in Advances in Materials and Manufacturing Processes (AMMP-2007), Uni. B.D.T College of Engg, Davangere, Karnataka, Oct 5th -6th, 2007.
4. "Mechanical Characterization of Areca Fiber and Maize Powder Reinforced Plastic Composites", national conference on New Advances in Thermal, Design, Materials and Manufacturing Engineering - (NATDMME – 09) held during 5th - 7th March 2009 at Malnad College of engineering Hassan, Karnataka.
5. "Experimental studies on tensile and bending strength of polymer matrix composites with particulate fillers", National conference on Emerging Trends in Mechanical Engineering (ETME – 2009) Oxford College of Engineering, Bangalore, Karnataka, 13th – 14st March 2009.
6. "Wear testing of al 25 composites made through R.T.M", National conference on advances in Mechanical Engg. (AME – 2009) on 30th - 31st March 2009 held at Don Bosco college of Engg. Bangalore.
7. "Wear Testing of Carbon Composites Made through R.T.M", National Conference on New Advances in Thermal, Design, Materials and Manufacturing Engineering - (NATDMME – 09) held during 5th - 7th March 2009 at Malnad College of Engineering Hassan, Karnataka.
8. "Fabrication and analysis of solar still", National conference on Advances in Mechanical Engineering (NCAME 2009) February 28th and March 1st 2009, Moradabad Institute of Technology, Moradabad, U.P.
9. "A Single Basin Double Slope Solar Still Attached with FPC" National Conference on Advances in Mechanical Engg. (AME – 2009) on 30th - 31st March 2009 held at Don Bosco college of Engg. Bangalore.
10. "Solar Distillation Unit" National Conference on "Information Technology Trends In engineering applications" (NEC – 2009) Dayananda sagar college of Engg, Bangalore, 19th – 21st march 2009.
11. "Kitchen waste based compact biogas plant", National conference on Emerging Trends in Mechanical Engineering (ETME – 2009) Oxford College of Engineering, Bangalore, Karnataka, 13th – 14st March 2009.
12. "Solar Water Distillation-An Ideal Solution for Water Purification" National conference on Emerging Trends in Mechanical Engineering (ETME – 2009) Oxford College of Engineering, Bangalore on 13th – 14st March 2009.

National Seminar: 1

1. "Online Examination System and Purpose – A Review", 12th ISTE State level convention and Two day National Seminar on Role of Faculty in the Examination System, 20th – 21st Nov 2009, GMIT, Davangere, Karnataka.

State Level Student Technical Seminar: 1

1. "Fatigue and Life Estimation of Connecting Rod", presented in Recent Advances in Mechanical Engineering (RAME-2007), state level student's technical seminar held at G.M. Institute of Technology, Davangere, 2nd & 3rd November 2007.

Awards / Achievements

1	International citation indices, Citations – 81, H – index – 5 and I 10 – index – 3 of my research publications (Courtesy - Google Scholar Citations).
2	Associate Editor, Editorial board member, Technical committee member and reviewer for many international journals and conferences.
3	Collaborative research work with renowned institutional faculties.
3	Instrumental in getting a major research project, which was approved by UGC, New Delhi and sanctioned research grants of 8.4 lac.
4	Received “Seed Money to YOUNG SCIENTIST for Research” from VGST, Govt. of Karnataka and received grant of Rs. 4.00 Lakhs.
5	Represented Karnataka State Basketball team (Junior Nationals) in National Level tournament held in Madhya Pradesh during 1999-2000. Also represented as Captain of Kuvempu University Basketball in South zone inter-university meet held at Kerala and Tamil Nadu.

Workshops / Seminars / Conference organized / Conducted

1	A seminar on “Nanotechnology” by Dr.Vishnu Prasad Bhotla , Scientist IISC Bangalore on 18th august 2010.
2	A seminar on “Biocomposites” by Prof.Mohan Kumar , NITK Suratkal on 5th march 2011.
3	A seminar on “Computational Fluid Dynamics” , by Mr.Shashidhara , Asst Manager, Faurecia Emission Control Technologies, Bangalore on 6th April 2011.
4	Conducted workshop on “How to write research Paper” by Dr.Basavarajappa S and Dr. Arun.K.V , UBDTCE on 15th January 2011.

Workshops / Seminars / Conference attended

Sl. No.	Seminar/ workshop	Dates	Title	Institution Conducted
1	Three Days: Workshop (SIT – VTU)	11 th -13 th May 2015	Incubating Relevant Engineering R&D Programs and Establishing Centers of Excellence in Engineering Colleges	SIT, Tumakuru
2	One day: FDP	18 th April 2015	Plagiarism Issues and Essential Tools for Research Write ups	JIT, Davangere
3	Two weeks: FDP (IIT,KGP – UBDTCE)	2 nd to 12 th December, 2014	Control Systems	UBDTCE, Davangere
4	One Day: Workshop	9 th Nov, 2013	LATEX for Documentation	GMIT, Davangere

5	Three Days: Workshop (VTU E-Learning)	27 th – 29 th July, 2013	Research Methodologies and LATEX	GIET, Ramanagara
6	Two week: FDP (IITB – UBDTCE)	11 th to 21 st December, 2012	Thermodynamics	UBDTCE, Davangere
7	Two week: FDP (IITB – UBDTCE)	25 th June to 4 th July, 2012	An Introduction to Research Methodology	UBDTCE, Davangere
8	One week: FDP (IITB – UBDTCE)	26 th to 30 th March, 2012	Quantitative Research Techniques	UBDTCE, Davangere
9	Two Day: ISTE-IITB Workshop	18 th – 19 th Feb, 2012	Writing effective conference papers	ASE, Bangalore
10	One week: FDP (NITK - CMTI)	20 th -24 th June, 2011	Advances in Manufacturing and precision engineering	NIT – K, Suratkal
11	One day: FDP	20 th Jan, 2011	Publishing research articles in journals	BIET-MBA, Davangere
12	One week: FDP	28 th – 2 nd July, 2010	Material Science : A fundamental approach	PESIT, Bangalore
13	One week: FDP	18 th – 22 nd Dec, 2009	Recent Developments in Tribology of Mechanical Systems	BEC, Bagalkot
14	Two days: ISTE National Seminar	20 th – 21 st Nov, 2009	Role of faculty in examination system	GMIT, Davangere
15	One day: Seminar	31 st Oct, 2009	Fracture Mechanics	BIET, Davangere

University responsibilities

1	Ph.D. Doctoral Committee member
2	Internal and External examiner for practical exams
3	Evaluation of theory papers for both UG and PG Courses
4	DCS (External & Internal)
5	Question Paper setting
6	External examiner for both UG and PG project work evaluation

New Technology / Information learnt / exposed

1	Compositional analysis of Cellulosic fibers
2	Green/Bio based Composite materials (Sustainability)
3	Failure/Fracture Analysis of materials
4	Optimization Techniques using statistical tools

Membership details

1. Lifetime member of Material Research Society of India (MRSI), Indian Academy of Science, Material Research Center, Indian Institute of Science (IISc).
Membership no. - LMB 1794.
2. Lifetime member of Indian Society for Technical Education (MISTE), New Delhi
Membership no. - LM 98219.
3. Member of International Association of Engineers (IAENG), Society of Mechanical Engineers, Hong Kong.
Membership no. – 124247.
4. Member of the Science and Engineering Institute (SCIEI).
Membership no. – 20130820003.
5. Member of International Association of IT (Collaborative Interdisciplinary Research), Singapore.
Membership no. - 80345208.
6. Member of International Innovative Scientific & Research Organization (IISRO).
Membership no. - 2012 – 1122.

Personal Details

Gender	Male
Date of Birth	15 th June 1984
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