





# Dr. SHANMUKHA NAGARAJ

# **Dean Academics**

Professor, Department of Mechanical Engineering RV College of Engineering, Bengaluru – 560 059

# **CURRICULUM VITAE**

1. Name : Dr. SHANMUKHA NAGARAJ

2. Date of Birth / Age : 21<sup>st</sup> Aug 1970 / 53 Years

3. Highest Qualifications : Ph.D



4. Acaden	nic Performance: (1	Performance: (High School to Highest Qualifications)		
Qualifications	Board / University	Institute and place where studied	Year of passing	Class & % marks
SSLC	KSEEB	St. Joseph's High School, Hassan	1986	FC / 75
PUC / 10+2	PU Board	Govt. Science College, Chitradurga	1988	FC / 62
B. E.	Mysore University	J.M. Institute of Technology, Chitradurga	1992	FC / 81
М. Е	Karnatak University	K.L.E Socieity's College of Engg. & Technology, Belgaum	1997	FCD / 83
Ph. D.	Mangalore University	Centre for Manufacturing Research & Technology Utilization (CMRTU)	2007	

5.	Date of Joining RVCE	14 <sup>th</sup> May 1999	
6.	Office address	Dean Academics	
		Professor, Department of Mechanical Engineering,	
		R.V. College of Engineering,	
		RVV Post, Mysore Road,	
		Bangalore – 560 059	
7.	Phone/email	(Office) 080-6818 8127	
		(Mobile) +91-98451 29398	
		dean.academcis@rvce.edu.in	
		shanmukhan@rvce.edu.in	

8. Positions Held:			
	FROM	TO	INSTITUTION
Lecturer	1992	1997	SJMIT, CHITRADURGA
Lecturer	1997	1999	DSCE, BANGALORE
Lecturer	15-05-1999	21-09-2005	RVCE, BANGALORE
Assistant Professor	22-09-2005	06-02-2009	RVCE, BANGALORE
Assistant Professor & Workshop Superintendent	01-12-2007	07-02-2009	RVCE, BANGALORE
Professor	07-02-2009	Till date	RVCE, BANGALORE
Professor & Associate Dean (PG Studies)	31-01-2012	31-05-2015	RVCE, BANGALROE
Professor	01-06-2015	30-09-2017	RVCE, BANGALORE
Professor & Dean Students Affairs	01-10-2017	30-06-2019	RVCE, BANGALORE
Professor & Dean Academics	01-07-2019	Till date	RVCE, BANGALORE

# 9. Funded Research Projects/ Consultancy Projects:

	Funded Research Projects					
#	Project title	Sponsoring organization	Amount sanctioned	Status		
1.	Cold expansion process evaluation for life limited critical aero-engine components [Principal Investigator]	AICTE [Nationally Coordinated Project] Duration: 3 years	25,00,000	Completed		
2.	Design and development of novel method of composite preparation.  [Principal Investigator]	UGC Duration: 1 years	90,000	Completed		
3.	Skill development and self employment training programme – testing & analyzing of exhaust emission from vehicles [Principal Investigator]	Department of Science & Technology  Duration:01 year	3,53,400	Completed		
4.	Experimental & analytical studies of residual stress fields& fatigue crack growth of pre-stressed fastener holes [Principal Investigator]	Directorate of Extramural Research & Intellectual Property Rights [DRDO] Duration:02 years	14,16,400	Completed		
5.	Development of bio fiber reinforced sandwich structures [co- investigator]	Environmental Research Programme (ERP), New Delhi Duration: 02 years	9,86,700	Completed		
6.	Study on design & development of high strength ultra fine-grained alloys through equal channel angular Extrusion (ECAE)  [Principal Investigator]	Ministry of Defence Naval Research Board Duration: 02 years	29,76,800	Completed		
			83,23,300.00			

	CONSULTANCY PROJECTS					
#	Project Title	Name of the Industry & Address	Amount (Rs)	Status		
1.	Application of Nanotechnology in Bearings	SKF Technologies (India)Private Limited Bommasandra Industrial Area, Bangalore - 99	Appreciation Certificate	Completed		
2.	Characterization of Grinding Sludge and use as Secondary raw materials Year: 2016	SKF Technologies (India)Private Limited Bommasandra Industrial Area, Bangalore - 99	Appreciation Certificate	Completed		
3.	Design and Development of an Automated traverse winder with vision system and interleave paper for a stamping press.  Project under CSR Scheme	TE Connectivity India Pvt. Ltd., No.22B, TE Part, Doddenakundi 2 <sup>nd</sup> Phase, Industrial Area, Whitefield Road, Bangalore -48 Duration: 1 Year From Jan 1, to Dec 31, 2016	20,00,000.00	Completed		
4.	Thermal Energy auditing of producer gas and kiln units of VRPL	Viswakarma Refractories Private limited Kolar Industrial Area, Kolar	6,00,300.00	Completed		
5.	Electrical Energy Auditing and management at BCFL/VRPL	Bhuwalka Casting and Forgings Pvt. Limited, Kolar	5,65,800.00	Completed		
6.	Characterization and studies on reclaimed waste foundry sand as aggregates of building projects	Bhuwalka Casting and Forgings Pvt. Limited, Kolar	6,14,100.00	Completed		
7.	Regenerative power from Bruderer Press  Duration: 1 Year; Jan 1 to Dec 31, 2017	TE Connectivity India Pvt. Ltd., No.22B, TE Part, Doddenakundi 2 <sup>nd</sup> Phase, Industrial Area, Whitefield Road, Bangalore -48	8,50,000.00	Completed		
8.	Micro Hydro turbine power generation  Duration: 1 Year; Jan 1 to Dec 31, 2017	TE Connectivity India Pvt. Ltd., No.22B, TE Part, Doddenakundi 2 <sup>nd</sup> Phase, Industrial Area, Whitefield Road, Bangalore -48	8,00,000.00	Completed		
9.	Power generation through Tribo Electric Nano Generators  Duration: 1 Year; Jan 1 to Dec 31, 2017	TE Connectivity India Pvt. Ltd., No.22B, TE Part, Doddenakundi 2 <sup>nd</sup> Phase, Industrial Area, Whitefield Road, Bangalore -48	10,00,000.00	Completed		
10.	Reliability Testing of Raspberry Pi Controller  Duration: 4 Year; November 17 to February 2018	TE Connectivity India Pvt. Ltd Shirwal, Pune, Maharashtra	3,00,000.00	Completed		

#	Project Title	Name of the Industry & Address	Amount (Rs)	Status
11.	Design of an Automated System to Pick and Place Gift Toys from Bowl to the Conveyor	Samson Automation Technologies Panchakula, Haryana	12,00,000.00	Completed
	Duration: 15 Weeks			
12.	Design and Development of Collaborative Robot  Duration: 1 Year;	TE Connectivity India Pvt. Ltd., No.22B, TE Part, Doddenakundi 2 <sup>nd</sup> Phase, Industrial Area, Whitefield Road, Bangalore -48	12,00,000.00	Completed
13.	July 15 to June 30, 2019  Power generation through			
13.	Tribo Electric Nano Generators  Duration: 1 Year; Aug 2018 to July 31, 2019  (Extension of Project)	TE Connectivity India Pvt. Ltd., No.22B, TE Part, Doddenakundi 2 <sup>nd</sup> Phase, Industrial Area, Whitefield Road, Bangalore -48	3,00,000.00	Completed
14.	Deep Learning based Character Recognition (OCR) Vision System <b>Duration-2 months</b>	DeepHive Technology Services(P) Limited, Bikasipura, Bangalore	3,18,600.00	Completed
15.	Data logging system for FTTA (Fiber To The Antenna) Cable assembly	TE Connectivity India Pvt.Ltd., TE Park Local Manufacturing Unit, 22B Doddenakundi, 2nd Phase, 560048, Bangalore, India	3,68,160.00	Completed

Rs 1,01,16,960.00 (Rupees One Crore one Lakh sixteen thousand nine hundred and sixty only)

### **Sabbatical Exchange Program:**

Company: TE Connectivity India Pvt. Ltd, Doddanakundi, TE Park, Bengaluru

Duration: June 1st 2017 to August 14th 2017 (12 Weeks)

#### **Objectives:**

1. Provide 'hands on training' in the area of automation, to enhance practical knowledge and ability to communicate these concepts to the students.

- 2. Get exposure to company's R&D program and enhance ability to guide students in product design & development and project management.
- 3. To develop skills in process development, quality, and time and work management.
- 4. Offer a foundation for association with TE Connectivity to redesign the curriculum to meet the future needs of the industry.

#### **About the program:**

The overview of the company detailing about the infrastructure, people and place was obtained. The complete range of products of the company elaborating on the manufacturing processes namely the Molding, Stamping, Assembly and Testing was explained in detail. The orientation about the various functional testing and the assembly testing was given. The training schedule combined the concepts of mechanical and electronics so that the hands-on feel of the complete product design and implementation could be appreciated better with Mechatronics perspective. The working and maintenance of various machines namely the Bulb holder machine, Modjack machine, RJ11 assembly process, and the completely automated Invertible Modjack assembly process were explained thoroughly. This enhanced the practical knowledge of the complete assembly process.

## My impressions...

Since beginning, it was always my dream to work in an Industry and work hands-on with the machines. I realize the importance of practical exposure in the areas of materials, manufacturing, automation and mechatronics and its influence on the teaching quality.

It is really a "dream come true" experience for me.



# Industrial training program at TE Connectivity Plants @ Woert and Dinkelsbuhl, Germany (Two Weeks)

#### **Objectives:**

- To get more exposure on manufacturing system, with specific objectives as:
  - ✓ Manufacturing system & processes;
  - ✓ Automation and control;
  - ✓ Sensor manufacturing & their application;

#### **Outcome:**

- Exposure to the state-of-art manufacturing process
- ➤ Knowhow of complete automation and control of machines
- ➤ Plating and molds used exclusively in TE Connectivity

RVCE-TE Consultancy team consisting of Dr. Shanmukha Nagaraj (Mech), Dr. Geetha.K.S of Electronics and Communications, Dr. A. Sreedevi from Electrical and Electronics, Dr. Usha Rani.K.R from Electronics visited two plants of TE Connectivity in Germany from 5<sup>th</sup> Dec to 14<sup>th</sup> Dec 2016.



The summarized report is as follows:

Plant 1 was at Woert, Germany, where the complete automation of the assembly line along with the packaging was well deliberated to the team. The complete training on the special purpose machines along with the design concepts were exhaustively given for three days. Very good exposure on the various stamping process was obtained.

Plant 2 was at Dinkelsuehl, Germany, where training was concentrated on the various moulding processes. Training was given on the complicated processes of world class micomolding was very useful in understanding the complete automation of the processes. There was several complicated completely automated assembly which included the stamping press, molding done in parallel, and the stamped connectors being stitched onto the molded housings and the finally stitched connectors being checked by automated vision systems for validation. The complete assembly had four vision systems for inspection at various stages and all being synchronized. The complete automation system gave very good insight to the complicated design issues. The complicated process of selective electroplating was explained in detail.

#### 10. Research Publications:

No. of Papers with	No. of Papers with Q2	No. of Papers with	No. of Papers	No. of Papers
Q1 quartile	quartile Journal	Scopus indexed	with ELESVIER	with Springer
Journal	publication	Journal publication	Journal	Journal
publication		_	publication	publication
9	2	8	5	3

- 1. Ramesh, S., S. Denis Ashok, and Shanmukha Nagaraj. "An Energy Conservation Strategy using variable frequency drive for a Hydraulic clamping system in a CNC Machine." *Materials Today: Proceedings* 5.5 (2018): 13504-13513.
- 2. Tijare, Vijay, Shanmukha Nagaraj, Jogayya Sastry, and Madhusudhanrao Mulinti. "Load capacity estimation of elliptical contact rolling bearings." *Materials Today: Proceedings* 24 (2020): 1686-1695.
- 3. Manjunath, Keshav, Bharatish Achutarao, Duggirala Venkata Naga Harish, Babu Ramappa, and Shanmukha Nagaraj. "The Effect of Bias Voltage and Acetylene Gas Flow Rate on the Wear Behavior of Diamond-like Carbon Coatings on M2 High-Speed Steel." *Transactions of the Indian Ceramic Society* 82, no. 4 (2023): 295-306.
- 4. Prajwal, C. P., K. Uma Rao, Kishore Ravi Hegde, and Shanmukha Nagaraj. "A simple novel algorithm to optimize final gear ratio in electric and hybrid formula racing cars." In 2013 International Mutli-Conference on Automation, Computing, Communication, Control and Compressed Sensing (iMac4s), pp. 415-419. IEEE, 2013.
- 5. Noolvi, Basavaraj, Shanmukha Nagaraj, and Varada Raj Mudradi. "Fabrication and testing of SMA composite beam with shape control." In *AIP Conference Proceedings*, vol. 1859, no. 1. AIP Publishing, 2017.
- 6. Noolvi, Basavaraj, S. Raja, and Shanmukha Nagaraj. "Actively Tuned Vibration Absorber using Smart Adaptive Composites." *Materials Today: Proceedings* 4, no. 2 (2017): 3506-3512.
- 7. Noolvi, Basavaraj, and Shanmukha Nagaraj. "Modal analysis of smart composite cantilever beams." *Materials Today: Proceedings* 27 (2020): 1720-1722.
- 8. Ramesh, S., S. Denis Ashok, Shanmukha Nagaraj, M. Lohith Kumar Reddy, Niranjan Kumar Naulakha, and C. R. Adithyakumar. "Energy conservation strategy in Hydraulic Power Packs using Variable Frequency Drive IOP Conference Series: Materials Science and Engineering." In *IOP Conference Series: Materials Science and Engineering*, vol. 310, no. 1, p. 012041. IOP Publishing, 2018.
- 9. Noolvi, Basavaraj, S. Raja, and Shanmukha Nagaraj. "Constitutive Modeling of Smart Adaptive Composite with inactive SMP." *Materials Today: Proceedings* 16 (2019): 964-971.
- 10. Kumar, Pottem Samhith, K. R. Usha Rani, K. S. Geetha, Shanmukha Nagaraj, Prathamesh Zingade, and Akshata Shet. "Design and Integration of Collaborative Features Along with an Efficient GUI to the Industrial Robot." In *Microelectronics, Communication Systems, Machine Learning and Internet of Things: Select Proceedings of MCMI 2020*, pp. 15-28. Singapore: Springer Nature Singapore, 2022
- 11. Sharma, S. C., HN Narasimha Murthy, and Shanmukha Nagaraj. "Dispersion of Nano-Materials into Polymeric System for Enhanced Properties." In *Materials Science Forum*, vol. 638, pp. 1778-1783. Trans Tech Publications Ltd, 2010.
- 12. Vijayalakshmi, V., K. S. Geetha, and Shanmukha Nagaraj. "Experimental Design and Analysis of Triboelectric Nanogenerator for energy harvesting applications." In 2021 International Conference on Intelligent Technologies (CONIT), pp. 1-4. IEEE, 2021.
- 13. Sundar, Priya Kootelu, Bindu Mohan Chavala, Shanmukha Miyatura Nagaraj, and Harshitha Kotla Reddy. "A Study of Serum Levels of Vitamin B12, Folic Acid, and Homocysteine in Vitiligo Patients and Controls Attending a Tertiary Care Hospital in Bengaluru-An Analytical Cross-Sectional Study." *Journal of Evolution of Medical and Dental Sciences* 10, no. 30 (2021): 2271-2276.
- 14. Keshav, M., Shanmukha Nagaraj, and Sangamesh Gudda. "Investigation of matrix fin based effluent cooling system." In *Journal of Physics: Conference Series*, vol. 1473, no. 1, p. 012053. IOP Publishing, 2020.

- 15. Tijare, Vijay, Shanmukha Nagaraj, Mehul Pandya, and Jun Wang. "Computational Fluid Dynamics Study of Oil Lubrication in Ball and Roller Bearings." In *Proceedings of the 6th National Symposium on Rotor Dynamics: NSRD 2019*, pp. 253-265. Springer Singapore, 2021.
- 16. Nagaraj, Shanmukha, V. Mamtha, and M. S. Vinod. "Effect of ECAP on Al 6061–FEA Approach." In *Materials Science Forum*, vol. 638, pp. 443-448. Trans Tech Publications Ltd, 2010.
- 17. Noolvi, Basavaraj, Shanmukha Nagaraj, and S. Raja. "Fabrication, Analysis and Testing of Smart Adaptive Composite Beams." *International Journal of Vehicle Structures & Systems (IJVSS)* 10, no. 5 (2018).
- 18. Bhat, Maanasa, Mandara Yogaraj, and Shanmukha Nagaraj. "Optimization of C/D Ratio of Adjacent Pre-stressed Fastener Holes Using Finite Element Analysis." *Procedia Materials Science* 5 (2014): 1761-1770.
- 19. Nagaraj, Shanmukha, and M. Krishna. "Microstructure analysis of cold worked holes." In *Materials science forum*, vol. 539, pp. 2222-2227. Trans Tech Publications Ltd, 2007.
- 20. Prasanna, Dheeraj, Karthik Sullia, and Shanmukha Nagaraj. "Throttle override safety system for 'design induced pilot error'in electric vehicles." In 2017 IEEE International Conference on Consumer Electronics-Asia (ICCE-Asia), pp. 156-159. IEEE, 2017.
- 21. Ranjan, Rishav, Sindhu Srinath, Anshul Dhakar, Bhadri Rajasai, and Shanmukha Nagaraj. "Single Motor Mechanical Power-Split Transmission for Hybrid Racing Cars." *International Journal of Vehicle Structures & Systems* 9, no. 3 (2017): 199-205.
- 22. Ramesh, S., S. Denis Ashok, Shanmukha Nagaraj, C. R. Adithyakumar, M. Lohith Kumar Reddy, and Niranjan Kumar Naulakha. "Design of An Energy Efficient Hydraulic Regenerative circuit." In *IOP Conference Series: Materials Science and Engineering*, vol. 310, no. 1, p. 012042. IOP Publishing, 2018.
- 23. Nataraj, G. S., Shanmukha Nagaraj, M. Keshav, and K. R. Prakash. "position characterization of electro-pneumatic closed loop control valve."
- 24. Nagaraj, Shanmukha, and L. Ranganath Gowda. "Dynamic behaviour of Subframe of Dump Truck Chassis." *Indian Journal of Education and Research Publication (IJREP)* 1 (2018).
- 25. KS, Sriranjini, H. V. Abhishek, Mandara Yogaraj, and Shanmukha Nagaraj. "Design And Analysis of Check Valves used in Hydraulics." (2014).
- 26. Nagaraj, Shanmukha, and S. Ramesh. "Programmable Logic Controlled Circuits." *International Journal of Research in Engineering and Technology* 1, no. 2 (2013): 111-116.
- 27. Mahesh, P., Shanmukha Nagaraj Dr, and S. Rajeesh. "Modular Automated Workstations-Sequential Controlling by Using Programmable Logic Controllers." In *International Conference on Challenges and Opportunities in Mechanical Engineering, Industrial Engineering and Management Studies*, vol. 150.

#### **COUNTRIES VISITED:**

USA, Canada, Spain, Germany, France, Italy, South Africa, Singapore, Malaysia, British Columbia, Thailand, Austria, Czech Republic, Japan.

#### 11. Papers Presented In International Conferences:

- 1. "Synthesizing and Fabrication of Al-PDMS based Triboelectric Nano Generator", Shanmukha Nagaraj, presented and published in International Conference on applied physics and Engineering (ICMAE 2018), organized by IIT, Indore, held on June 3-4, 2018.
- 2. "Harmonic Response Analysis of Gearbox", Rishav Ranjan, Sindhu Srinath, Shanmukha Nagaraj, presented in 2nd International Conference on Mechanical, Manufacturing and Process Plant Engineering (ICMMPE2016), held at Kuala Lumpur, Malaysia, from November 23rd-24th, 2016.
- 3. "Single Motor Mechanical Power Split Transmission for a hybrid car", Rishav Ranjan, Sindhu Srinath, Anshul Dhakar, Bhadri Rajasai, Shanmukha Nagaraj, presented in 2nd International Conference on Mechanical, Manufacturing and Process Plant Engineering (ICMMPE2016), held at Kuala Lumpur, Malaysia, from November 23rd-24th, 2016.
- 4. "Integral formulation of the problem of current distribution in compulsator wires of electromagnetic launchers and railguns" at 14<sup>th</sup> International symposium on Electromagnetic Launch Technology held in Victoria, British Columbia, CANADA from June 10-13, 2008.
- 5. "Fatigue performance of cold expanded holes in Al7050 aluminum alloys" at Sixteenth International Conference on Processing & Fabrication of Advanced Materials [PFAM-XVI] held in Singapore from 17-19 December 2007.
- "Optimization of c/d ratio of adjacent pre stressed fastener holes in HCF using finite element analysis" accepted for presentation in the Fourth International Conference on Very High Cycle Fatigue [VHCF-4], university of Michigan, Ann Arbor, Michigan, USA, August 19-22, 2007.
- 7. "Photo Elastic stress measurement on Pre-stressed fastener holes for improved high-cycle fatigue performance" accepted for presentation in the Fourth International Conference on Very High Cycle Fatigue [VHCF-4], university of Michigan, Ann Arbor, Michigan, USA, August 19-22, 2007.
- 8. "Finite Element Analysis of Pre-stressed fastener holes for Optimum Fatigue Performance for Automotive Applications" International Conference on Modeling & Optimization of Structures, Processes & Systems, ICMOSPS'07, DURBAN, SOUTH AFRICA, 22-24 January, 2007.
- 9. "Optimization of C/D ratio of adjacent pre-stressed holes using Finite Element Analysis" at International Conference on Modeling & Optimization of Structures, Processes & Systems, ICMOSPS'07, DURBAN, SOUTH AFRICA, 22-24 January, 2007.
- 10. "Stress analysis and Evaluation of fatigue properties using cold hole expansion process" in FATIGUE 2006 9<sup>th</sup> International Fatigue congress held at Omni hotel, CNN center, Atlanta, USA, 14th to 19<sup>th</sup> May 2006
- 11. "Evaluation of tensile properties of cold expanded hole for improved fatigue life" in FATIGUE 2006 9<sup>th</sup> international fatigue congress held at omni hotel, CNN Center, Atlanta, USA, 14th to 19<sup>th</sup> may 2006.
- 12. "Microstructure analysis of cold worked holes" in THERMEC'2006, International Conference on "processing & manufacturing of advanced materials" held at Vancouver, Canada 04-08 July 2006.
- 13. "Finite element analysis of pre-stressed fastener holes for enhanced fatigue performance for automotive applications" accepted for presentation in the International Conference ICAMP-4, Advanced materials & processing conference, Department of materials and process Engineering, university of Waikato, Hamilton, New-Zealand to be held December 10-13, 2006.
- 14. "Cold expansion studies by finite element method" at 12<sup>th</sup> annual international conference on composites/nano engineering [ICCE-12] at Tenerife, Canary Islands, Spain, August 1<sup>st</sup> to 6<sup>th</sup> August 2005.

#### 12. Paper Presentation In National Conferences:

- 1. "Dynamic behavior of sub frame of dump truck chassis A Review" in the 5<sup>th</sup> National conference on "Topical Transcend in Mechanical Technology" TTMT-17, organized by Department of Mechanical Engineering, SJBIT, Bangalore on 10<sup>th</sup> May 2017.
- 2. "Fatigue performance of cold expanded holes in al7050 aluminum alloy" in the International Conference on Advanced Materials and Composites (ICAMC-2007) to be held in Thiruvananthapuram, Kerala, India, October 24-26, 2007.
- 3. "Finite Element Analysis of Pre-Stressed holes for Optimum Fatigue performance for Automotive Applications" in the National Conference on Advances in Mechanical Engineering, organized by Department of Mechanical Engineering, Kumara guru College of Technology, Coimbatore, Tamilnadu, India, March 22-24, 2007.
- 4. "Optimization of C/D ratio of Adjacent Pre-stressed holes using Finite Element Analysis" in the National Conference on Advances in Mechanical Engineering, organized by Department of Mechanical Engineering, Kumaraguru College of Technology, Coimbatore, Tamilnadu, India, March 22-24, 2007.
- 5. "Micro structure studies of pre-stressed holes" in National Conference on Failure Analysis (NCFA-2006), organized by Defense Metallurgical Research Laboratory (DMRL), Hyderabad, India, December 22-24, 2006.
- 6. "Analysis of cold expanded hole under tension for improved Fatigue life" in optest-2006 National conference on optimization techniques in Engineering Sciences & Technologies held at Department of Mechanical Engineering, Bannari Amman Institute of Technology, Sathyamangalam, Tamilnadu, India, April 11-12, 2006.

#### 13. Conferences/ Seminars / Workshops Organized:

- 1. Faculty advisor, Faculty Development Programs initiated through IQAC, 2020-2023. Topics: OBE, View of TLP -NEP 2020, research initiative programs, Inter Disciplinary Research works initiation.
- 2. Convener, 4<sup>th</sup> Edition of Annual Entrepreneurship fest E-Summit-2019, "Breaking the Barriers", organized by Entrepreneurship Development Cell of RVCE from Feb 21-23, 2019 at R.V.College of Engineering, Bengaluru-59.
- 3. Member of the Organizing Committee, 8<sup>th</sup> Mile 2018, "High on Colours", Techno cultural event organized by R.V.College of Engineering during March 23-25, 2018;
- 4. Chief Coordinator, RV QuizCorp, 20th edition of Under the People Tree, during March 23-25, 2018;
- 5. Organized One day Workshop on "Counselling the Counsellors" for the first year counselors at Wonderla Resorts and Holidays on Saturday, 10<sup>th</sup> Feb 2018;
- 2. Member of the Organizing Committee of The National Entrepreneurship Summit of RV College of Engineering during Feb 22-24, 2018; E-Summit 2018 witnessed its third edition with a theme as Manifesting Millenials;
- 3. Member of the Organizing Committee of National Conference on Leveraging Intelligent Transportation System for Enabling Smart Cities [ITS-2017] organized by Department of IEM, Civil, E&E, ISCE & CSE, R.V. College of Engineering, Bengaluru-59 during March 2-4, 2017
- 4. Workshop on "Opportunities for higher studies" Organized by the Department of Mechanical Engineering, R.V. College of Engineering, Bengaluru-59 for the VI & VIII sem students of Mechanical Engineering on 21st February 2017.

- 5. Member of the Organizing Committee of Second International Conference on Large Area and Flexible Microelectronics (ILAFM2016); Wearable Electronics, organized by Department of Electronics & Communication Engineering, R.V. College of Engineering, Bengaluru-59 during December 20-22, 2016.
- 6. Member of the Organizing Committee of the International Conference on Smart Engineering Materials ICSEM-2016, held at R.V. College of Engineering, Bengaluru 59, during 20-22 October 2016.
- 7. Program Coordinator, One day Road show on "Manufacturing Engineering as a profession for graduating engineers" hosted by R.V. College of Engineering, in association with Confederation of Indian Industry on 24<sup>th</sup> September 2016 for the students of Mechanical, Industrial Engineering and Management and Automobile Engineering.
- 8. Program Coordinator, One day Panel Discussions on "Careers in Engineering Design & Innovation" hosted by R.V. College of Engineering, Bengaluru in association with SAEINDIA, Bangalore Section and TE Connectivity on Saturday, 27<sup>th</sup> February 2016 at RVCE Campus, Bengaluru.
- 9. Program Coordinator, One day workshop on "Industry-Academia Conclave on Employability enhancement on post graduate Engineering Students" organized by TEQIP-II, RVCE on Friday, 5<sup>th</sup> February 2016.
- 10. Member, Organizing committee, Second Internal Conference on "A Five day workshop on "Robotics and Low cost Automation" jointly organized by Departments of Industrial Engineering & Management and Mechanical Engineering, RVCE under TEQUIP-II initiative, during August 12-17, 2013.
- 11. Chief Coordinator, One day workshop on "Make in India Prospects, Possibilities and Paths" organized by TEQIP-II, RVCE on Saturday, 30<sup>th</sup> January 2016.
- 12. Coordinator, Technical talk on "Precepts to Practice in manufacturing sector", organized by the departments of IEM & Mechanical, RVCE on 21st November 2013.
- 13. Member, Organizing committee, One day workshop on "Zero waste" organized by R.V. College of Engineering under TEQUIP-II initiative, during August 21, 2013.
- 14. Member, Organizing committee, A Five day workshop on "Robotics and Low cost Automation" jointly organized by Departments of Industrial Engg. & Management and Mechanical Engineering, RVCE under TEQUIP-II initiative, during August 12-17, 2013.
- 15. Member, Organizing committee, workshop on "Paths & Processes to achieve excellence in technical education" jointly organized by RVCE & State Project facilitation Unit [SPFU] under TEQUIP-II initiative, during August 14, 2013.
- 16. Chief Coordinator, Organizing committee for two day workshop on "Advances in Fatigue and Fracture" organized by Department of Mechanical Engineering, R.V. College of Engineering, Bangalore-59, during October 18-19, 2012.
- 17. Chief Coordinator for two day National seminar on "Advanced Forming Technologies" AFT-2010 organized by Department of Mechanical Engineering, R.V. College of Engineering, Bangalore-59, sponsored by Naval Research Board, New Delhi, during April, 15-16, 2010.
- 18. Chief Coordinator for organizing **Vintage Car Rally**, organized by Department of Mechanical Engineering, RVCE, under VORTEX 2010, for the cause "Save the Tiger" during March 7, 2010.

- 19. Chief Coordinator for one day seminar on "Pre stressing of holes for fatigue life improvement in machine components" in collaboration with AICTE, New Delhi, organized by Department of Mechanical Engineering, R.V. College of Engineering, Bangalore-59, during December 5, 2005.
- 20. Chief Coordinator for two days Seminar on "Specimen preparation for photo-elastic stress measurements" in collaboration with AICTE, New Delhi, organized by Department of Mechanical Engineering, R.V. College of Engineering, Bangalore-59, during September, 22-23, 2005.

#### 14. Expert/Guest Lectures delivered:

- 1. Invited as resource person to deliver an expert lecture on "Practicing Integrated Teaching Learning Process" organized by the National Engineering College, Kovilpatti, from Nov 21-22, 2023.
- 2. Invited as resource person to deliver a lecture "Bloom's Taxonomy", in a Five-day Faculty Development Programme on "Outcome Based Education" organized by the Department of Information Science & Technology, RV Institute of Technology & Management from Sept 25-29, 2023.
- 3. Key note speaker to deliver webinar on "Industrial IoT" in the Five-day Faculty Development Programmme on "Technological trends in Industry" organized by Department of Mechanical Engineering, Vemana Institute of Technology, Bangalore-34, from 29<sup>th</sup> June 2020 to 2<sup>nd</sup> July 2020.
- 4. Invited as resource person to deliver a lecture on "Academic Writing and IPR (Intellectual Property Rights)", in the One week online Faculty orientation Programme organized by the Department of Mechanical Engineering, Sharad Institute of Technology Polytechnic, Yadrav (Ichalkaranji) from June 8-12, 2020.
- 5. Key note speaker to deliver webinar on "Automation & Industrial Internet of Things" organized by Department of Mechanical Engineering, Vemana Institute of Technology, Bangalore-34, on 10<sup>th</sup> June 2020 for the students and faculty of Vemana Institute of Technology.
- 6. Invited as resource person to deliver expert lecture on "An overview of teaching techniques in Strength of Materials / Mechanics of Materials" organized by VTU centre for Post Graduate Centre, Muddenahalli, Chickaballapur District 562 101, during 26<sup>th</sup> August 2019.
- 7. Invited as resource person to deliver the expert lecture on "Mechanics of Materials & Design of Machine Elements in Engineering Applications" organized by the Department of Mechanical Engineering, Oxfod College of Engineering, Bommanahalli, Hosur Road, Bengaluru-68, during 10<sup>th</sup> October 2018.
- 8. Invited as resource person for the One week Faculty Development Program on "Research Issues & Challenges in Mechanical Engineering", organized by the Department of Mechanical Engineering, B.N.M Institute of Technology, Bengaluru 70, during July 16-20, 2018.
- 9. Invited as resource person for Faculty Development Program on 'An Overview of Design of Machine Elements-II' at ATME College of Engineering, Mysuru 570028, organized by the Department of Mechanical Engineering, ATME College of Engineering during 16<sup>th</sup> January 2018.
- 10. Invited as resource person for Two Weeks Faculty Development Program on 'Recent Developments in Renewable Energy Sources and its Applications' at Ghosia College of Engineering, Ramanagaram 571511, organized by the Department of Mechanical Engineering, GCE during 24<sup>th</sup> November 2017.
- 11. Invited as resource pers& on for Faculty development Program on "NBA Accreditation Process" at SJBIT, Bengaluru-560060, organized by the Department of Mechanical Engineering, SJBIT during March 1, 2016

- 12. Invited Lecture on Importance of 'Vision & Mission Statements in NBA' to the faculty members of Malnad College of Engineering, Hassan, Organized by the department of Mechanical Engineering, MCE, Hassan on Thursday, 19<sup>th</sup> February 2015.
- 13. Invited Lecture on Quality of question papers and attainment of COs and POs, to the faculty members of Malnad College of Engineering, Hassan, Organized by the department of Mechanical Engineering, MCE, Hassan on Thursday, 19<sup>th</sup> February 2015.
- 14. Invited Lecture on Quality of question papers and attainment of COs and POs, to the faculty members of AIT, Bangalore, Organized by the department of Mechanical Engineering, AIT, Bangalore on Thursday, 08<sup>th</sup> February 2015.
- 15. Resource person to technical seminar on "Overview of Mechanics of Materials and Design" at Dayananda Sagar Academy of Technology & Management, Bangalore-560 082 on Sept 21 Oct 01, 2013.
- 16. Technical Talk on "Research Methodologies for Engineers" to the faculty members of New Horizon College of Engineering, Bangalore-560 103 on 28<sup>th</sup> July 2012.
- 17. Expert Lecture on "Composite Materials an overview" in eve of Faculty Development Programme supported and catalyzed by Government of Karnataka, Vision Group on Science and Technology, Department of Information Technology, Biotechnology and Science and Technology, Visvesvaraya Technological University, Belgaum and organized by the Department of Industrial and Production Engineering, SJM Institute of Technology, Chitradurga, on 15th March 2012.
- 18. Expert Lecture on "Strategies to control Climatic Changes" at AICTE sponsored two week staff development programme on "The world today & Tomorrow-The energy Challenge", organized by the Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumkur, on 28th June 2011.
- 19. Expert Lecture on "Plug in Hybrid vehicle for green environment" at AICTE sponsored two week staff development programme on "Emerging trends in energy sources", organized by the Department of Mechanical Engineering, Ghousia College of Engineering, Ramanagaram, on 23rd June 2011.
- 20. Expert Lecture on "Composite Materials an Overview" at one day workshop on"Recent developments in composite materials & Metal Matrix RDCM-10, organized by the Department of Mechanical Engineering, New Horizon college of Engineering, Bangalore-560 103, on 20th October 2010.

## 15. Training Programmes / Short term courses attended:

- 1. Short term course on "Simulation Based Engineering Science Approach: A Scientific Approach to Engineering under the sponsorship of Technical Education Quality Improvement Programme –II held from December 18-19, 2015 at IIT Delhi Organized by Department of Mechanical Engineering, Indian Institute of Technology, Delhi.
- 2. Ten day Advanced training on "**Hydraulics, Pneumatics & PLCs**" Bosch Rexroth AG, Drive & Control Academy at Wurzburg, Germany during August 7-16, 2011.
- 3. Thirty day training programme on "**Hydraulics & Pneumatics, Train the trainer programme**" jointly organized by Bosch Rexroth & VTU at VTU-Bosch Rexroth center for Industrial Automation, Mysore, during August 9 September 4, 2010.

- 4. Three day training programme on "Computer Aided Machine Drawing" organized by the Department of Mechanical Engineering, Bangalore Institute of Technology, Bangalore 004, during July 28-30, 2008.
- 5. Faculty Development Programme on "CAD Awareness Programme" conducted by M/s UGS, Bangalore and Organized by Visvesvaraya Technological University at Belgaum, during October 16-18, 2004.

#### 16. Conferences / Seminars / Workshops / FDPs attended:

- 1. One day workshop on "Current Trends in Research and Innovative Developments in the field of Fluid Power" organized by Fluid Power Society of India on 17<sup>Th</sup> June 2023.
- 2. One day Workshop on "**Implementing the Industrial IoT**" organized by National Instruments on 21 Feb 2018.
- 3. Fifth International Conference on Transformations in Engineering Education (ICTIEE) 2018 organised by Thiagarajar College of Engineering, Madurai in association with Indo-Universal Collaboration for Engineering Education (IUCEE) during 8<sup>th</sup> and 9<sup>th</sup> January 2018.
- 4. Three days International Conference on Enabling "Make in India Challenges and opportunities for Engineering Education" ICEMII 2016, organized by KLE Technological University, Hubballi, India at B.V.Bhoomaraddi College of Engineering & Technology, Hubballi from January 6-8, 2016.
- 5. Five day workshop on "Faculty Pedagogical Development Programme" organized by R.V. College of Engineering, Bangalore-59 under TEQUIP-II initiative, conducted by International Academy for Competency Enhancement, Bangalore at Atria Hotel, Bangalore from 27<sup>th</sup> April 2015 to 1<sup>st</sup> May 2015.
- 6. Two day workshop on "**Strategic Leadership for Excellence**" organized by R.V. College of Engineering, Bangalore-59 under TEQUIP-II initiative, conducted by International Academy for Competency Enhancement, Bangalore 90 at Atria Hotel, Bangalore from October 25-26, 2013.
- 7. Two weeks AICTE sponsored FDP Programme on "Smart Materials, Structures and Systems" organized by the department of Mechanical Engineering, Government Engineering College, Kushalnagar 571234, from September 16-28, 2013.
- 8. Two day National Conference on Sustainable "Institute Industry Partnership Strategies & Action Plans" conducted by Society for Educational & Entrepreneurship Development at IIT Madras on April 3-4, 2013.
- 9. Two day seminar on "Fatigue and Fracture of Engineering Materials and Structures" organized by M.S.Ramaiah School of Advanced Studies (Centre for training and lifelong learning) during January 28-29, 2011.
- 10. Three day National Conference on "New Advances in Thermal, Design, Materials and Manufacturing Engineering (NATDMME-09)" organized by Department of Mechanical Engineering under TEQUIP, Malnad College of Engineering, Hassan, Karnataka, India, during March 5-7, 2009.
- 11. A Three day National workshop on "Advances in Manufacturing process (AMP-2008)" sponsored by TEQUIP, organized by Department of Mechanical Engineering, National Institute of Technology, Warangal-560 004, during August 8-11, 2008.

- 12. Attended as a delegate in the International Conference on **Advanced Materials and Composites** (**ICAMC 2007**) organized by National Institute for Interdisciplinary Science & Technology (NIIST) CSIR, Thiruvananthapuram during October 24-26, 2007.
- 13. One day National Seminar on "Nano Materials" organized by the Department of Physics, R.V.College of Engineering, Bangalore 560 059, during October 9, 2006.
- **14.** Attended as a delegate in the International Conference on "Human Machine Interfaces ICHMI-2004", organized by J.N.N. College of Engineering, Kuvempu University & MIT Touch Lab, USA, at J.N. Tata Auditorium, IISc, Bangalore, during December 20-23, 2004.
- 15. Two day seminar on "Emerging Trends and Challenges in Technical Education" jointly organized by the Institution of Engineers (India) Karnataka State Centre and Visvesvaraya Technological University Belgaum in association with AICTE, New Delhi at Bangalore during November 9-10, 2004.
- 16. Attended as a delegate in the International Conference on "Total Engineering, Analysis & Manufacturing Technologies" organized by Indian Institute of Science, Bangalore, during November 2-4, 2004.
- 17. One day seminar on "Nanotechnologies for Space Applications (Nano-Tech 2004)" organized by R.V. College of Engineering & Indian Space Research Organization, Bangalore 59, on June 26, 2004.
- 18. One day national level seminar on "**Trends & Needs of Green Manufacturing**" sponsored by AICTE, New Delhi, organized by Adhiyamaan College of Engineering, Hosur 635109, during June 7, 2004.
- 19. One day workshop on "**Tig-Mig welding of stainless steel & Aluminium Alloys**" organized by Indian Institute of Welding, Bangalore Branch & BTL Institute of Technology & Management, Bangalore-562 158, during January 4, 2002.
- 20. One day workshop on "Condition Based Maintenance of Machinery" organized by Department of Mechanical Engineering, R.V.College of Engineering, Bangalore 560 059, during April 24, 2001.
- 21. ISTE sponsored short term course on "Advanced Materials Science" organized by Siddaganga Institute of Technology, Tumkur 572 103, during August 30 September 12, 1999.
- 22. Two day National Workshop on "**Total Quality Control & Management**" organized by Department of Mechanical & I.P Engineering, KLE S's college of Engineering & Technology, Belgaum, during March 17-18, 1997.

#### 17. Innovative Project Works:

- 1. Faculty Advisor for the Innovative Project "Chimera" a formula Electric SAE Car, participated in Students Formula Japan -2016, at Shizuoka Prefecture, Japan, during September 6-10, 2017
- 2. Faculty Advisor for the Innovative Project "Chimera" a formula Electric SAE Car, participated in Students Formula Japan -2016, at Shizuoka Prefecture, Japan, during September 6-10, 2016.
- 3. Faculty Advisor for the Innovative Project "Chimera", a formula Electric SAE Car. Participated in the Formula SAR Italy & Formula SAE Italy 2015. The Competition was held at Riccardo Paletti Circuit, Varano de' Melegari, Italy from September 11-14, 2015.

- **4. Ogara Smart food** @ **Food Court, RVCE:** Guided a group of students who have developed a smart app for Ogara food court, RVCE Campus.
- 5. Faculty Advisor for the Innovative Project "Chimera", a formal Electric SAE Car. Participated in the Formula Hybrid Competition held at Thayer School of Engineering, Dartmouth College, New Hampshire, USA. The competition was from the 28th of April 2014 to 1st of May 2014.
- 6. Faculty Advisor for the Innovative Project work "**Plug in Hybrid vehicle**", the car was displayed in the international event Challenge Bibendum, held at Berlin during May 2011.
- 7. Faculty Advisor for the Innovative Project work "**Tuk Tuk**", a hybrid Autoricksha participated in the International event organized at SRM University, Chennai during 2009.

#### 18. Research done: Significant contributions:

#### (PhD thesis: Stress Analysis and Evaluation of Fatigue Characteristics of pre-stressed holes.)

- 1. Design & development of mathematical modeling, experimental studies and finite element analysis of advanced materials.
- 2. Improvement of Fatigue life in Aluminum specimens with cold hole expansion.
- 3. Fatigue life enhancement in mild steel specimens with fastener holes with & without cold hole expansion.
- 4. Vibration analysis of composites.
- 5. Severe plastic deformation of aluminum & Steel test specimens.

#### 19. MoU Initiation and Activities:

- 1. MoU with Bhuwalka Castings and Forgings Pvt. Limited, Kolar: RVCE has signed an MoU with Bhuwalka Castings and Forgings Pvt. Limited, Kolar for visits, Internships, Consultancy activities, research etc. Three consultancy projects have been initiated from this MoU.
- 2. **MoU with MTAB Technology Centre, Chennai:** RVCE has signed an MoU with **MTAB Technology Centre, Chennai** for CNC, PLC and Automation Technologies. Under this MoU number of activities has been initiated. Undertaken consultancy in the area of Machine Design and Automation;
- **3. MoU with Bosch Rexroth:** RVCE has signed an MoU with **Bosch Rexroth** "Centre of Competency for Automation Technologies. Under this MoU number of activities has been initiated. Conducted number of certified training programmes; Guided UG/PG projects; Undertaken consultancy in the area of Machine Design and Automation;
- **4. MoU with SKF Bearings:** Instrumental in initiating MoU with SKF Bearings, Bangalore. Under this MoU two consultancy projects have been initiated in addition to students projects and internships;
- **5. MoU with CMTI:** Instrumental in initiating MoU with CMTI, Bangalore. Under this MoU two consultancy projects have been initiated in addition to students projects and internships;
- **6. MoU with TE Connectivity: RVCE has signed an** MoU with TE Connectivity, Bangalore. Under this MoU one consultancy project have been initiated in addition to students projects and internships;

#### 20. Awards & Recognitions:

#	Particulars	Awarded by	Awarded for
1.	Academic Excellence Award	RSST, RVCE during 2023	Patent granted by IP cell, INDIA
2.	Academic Excellence Award	RSST, RVCE during 2023	Academic Excellence
3.	Academic Excellence Award	RSST, RVCE during 2022	Academic Excellence
4.	Best Teacher Award	Cognizant- RVCE ISTE Chapter	Best teacher for the academic year 2016-2017
5.	Michelin Challenge Bibendum Certificate	Michelin India Pvt. Ltd., during 2011	Participating in the 11 <sup>th</sup> edition of Michelin Challenge Bibendum, Berlin 2011.
6.	Academic Excellence Award	RSST, RVCE during 2010	Paper presentation in the international conference at Berlin, Germany
7.	Academic Excellence Award	RSST, RVCE during 2009	Paper presentation in the international conference at British Columbia, CANADA
8.	Academic Excellence Award	ISTE, RVCE Chapter during September 9, 2008.	Academic excellence & research publication.
9.	Academic Excellence Award	RSST, RVCE during 2008	For award of PhD
10.	Academic Excellence Award	RSST, RVCE during 2007	Paper presentation in the international conference at Atlanta, USA & Vancouver, Canada
11.	Academic Excellence Award	RSST, RVCE during 2006	Paper presentation in the international conference at Tenerife, Spain
12.	Academic Excellence Award	ISTE, RVCE Chapter during September, 2005.	Academic excellence & Paper presentation in the International Conference.

## 21. Membership & Fellowship of Professional Bodies:

- 1. Member, ISHRAE;
- 2. Life Member, ISTE;
- 3. Member SAE;
- 4. Member FPSI;
- 5. VTU nominee, Board of Studies (Mechanical Engineering), New Horizon College of Engineering, Bengaluru (Autonomous), from 14 March 2018 to 13 March 2020.
- 6. Member BoS, Nitte Meenakshi Institute of Technology, Yalahanka, Bengaluru 560064.
- 7. External Expert in Board of Studies, Dayananda Sagar College of Engineering, Bengaluru.
- 8. VTU nominee, Board of Studies, Malnad College of Engineering, Hassan.
- 9. Member, BOE, Bangalore University.
- 10. Member, BoE, SIT, Tumkur, Autonomous Institute affiliated to VTU.
- 11. Member, BoS, Ambedkar Institute of Technology, Bangalore.
- 12. Recognized guide for Ph.D/M.S (By Research)/M.Phil, VIT University, Tamil Nadu, India.

#### 22. Books Published & Number of PhD Guided:

Books / Chapters	Publication	Year, level
Design of Machine Elements-1	Subhas Publications, Bangalore	First print 2009, Diploma & B.E. Reprint in 2022
Name of the Candidate	Year of PhD Awarded	
Dr. M.Keshav Faculty ME, RVCE	PhD awarded in 2023	
Dr. Vijay Tijare Senior Engineer, SKF Bearings.	PhD Awarded in 2023	
Dr. S Ramesh Faculty, Jain University	Co-Guide PhD awarded in 2022	
Dr.Basavaraj Kawdi Faculty & Dean Placements Engineering College, Bidar	PhD awarded in 2020	
Prof. Basavaraj Noolvi Faculty, Amritha University	Perusing	

#### 23. PATENT DETAILS:

- 1. Patent Granted for an invention entitled SINGLE MOTOR MECHANICAL POWER SLIT TRANSMISSION FOR HYBRID CAR". Patent No: 454896.
- 2. Patent Granted for an invention entitled *TRACTOR MOUNTED AERIAL WORK PLATFORM FOR ARECANUT FARMING*. Patent No: 436273.
- 3. Ramesh S, S. Denis Ashok, Shanmukha Nagaraj. "Design and Development of Variable frequency drive based electro-hydraulic circuit for CNC Application" published as Applicant and Inventor under Controller General of Patents, Design, and Trade Marks, Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, with Application Number: 201941032196.

#### 24. GOVERANCE as DEAN ACADEMICS

- Member Secretary, IQAC, RVCE: Involved in setting up benchmark in various academic and research activities like,
- 1. **Transparency and Accountability:** Transparent policies and procedures ensure that decisions are made openly and fairly. Accountability mechanisms hold faculty and staff responsible for their actions and performance, fostering a culture of responsibility.
- 2. **Effective Leadership:** Strong leadership at all levels, from the college administration to department heads, plays a crucial role in setting a clear vision, promoting academic excellence, and fostering a positive learning environment.
- 3. **Academic Autonomy:** Providing academic freedom to faculty members enables them to innovate in their teaching methods, curriculum design, and research activities, ultimately enhancing the quality of education imparted to students.
- 4. **Student-Centric Approach:** Placing students at the center of decision-making processes and addressing their needs and concerns fosters a supportive and conducive learning environment.

- Regular Assessment and Quality Assurance: Implementing mechanisms for continuous evaluation, feedback, and quality assurance helps in identifying areas for improvement and ensuring that educational standards are maintained.
- 6. Professional Development: Encouraging faculty and staff to engage in professional development activities, and attend workshops, conferences, and training programs, helps keep them updated with the latest trends and best practices in engineering education.
- Industry Collaboration: Establishing partnerships with industries, research institutions, and other stakeholders can provide students with real-world exposure, internships, and opportunities for hands-on learning, enhancing the quality and relevance of education.
- **Technology Integration:** Leveraging technology to enhance teaching and learning processes, such as online resources, virtual labs, and interactive tools, can make education more engaging, accessible, and effective.

By focusing on these aspects of good governance, Institutions can create a conducive environment for quality education that equips students with the skills, knowledge, and competencies needed to excel in their careers and contribute to society.

• In the ACY 2021-22, started new concept of Study through Projects and Activity for Renewing Knowledge (SPARK)- Project based learning initiation in collaboration with Indo-US Collaboration for Engineering Education (IUCEE). As a faculty advisor of the "SPARK", organized workshops, seminars, and training programs to enhance the professional development of engineering and technology for students as well as for faculties. These programs cover topics such as teaching methodologies, curriculum design, assessment techniques, and research skills for faculties and innovation, creativity, and problem-solving skills for students. In the ACY 2022-23, started student chapter of "SPARK" consists of 200 students. Students various projects demonstrated in the Internation conference of IUCEE, held on 22<sup>nd</sup> Jan 2024 in KLECE Hubli, Karnataka.

#### 25. ADMINISTRATION RESPONSIBILITIES HELD AS ON TODAY:

- 1. Professor & Dean Academics, R.V.College of Engineering, Bengaluru-59, wef 1st July 2019;
- 2. Member Secretary, IQAC, RVCE
- 3. Professor & Dean Students Affairs, R.V. College of Engineering, Bengaluru-59, from 2017 to 30<sup>th</sup> June 2019:
- 4. Associate Dean, Post-Graduation Studies, Department of Mechanical Engineering from 2012 to 2015;
- 5. Worked as Workshop Superintended, Department of Mechanical Engineering from 2007 to 2009.
- 6. Instrumental in setting up Bosch Centre of Competency, Computer Labs, Design Lab, Machine Shop etc.
- 7. Coordinator, Industry Institute Interaction cell, RVCE.
- 8. Chief Coordinator, Center of Competence for Automation Technologies. (Conducting short term certificate training programmes on Industrial Hydraulics; Industrial Pneumatics; Mechatronics and PLCs; Project works to UG and PG students on Automation.

(Dr. SHANMUKHA NAGARAJ)

Place: Bangalore

Date: Wednesday, May 1, 2024