



## **Mechanical Engineering Department News Letter**

### **2018-19 (Odd Semester)**

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## CHAIRMAN'S MESSAGE



Making a humble beginning in 2001, CIT has travelled many a mile to establish as a centre of excellence for professional education, in the region. The CIT family has grown well and has today about 3,000 students studying in different streams. This in itself speaks about our commitment and passion for success. The enviable growth of the CIT has been made possible by the contribution of each & every member of the CIT family. The students are imparted the right blend of theoretical concepts and knowledge, taught to succeed even as they take their first step towards their career. I warmly welcome the aspiring students into the CIT fraternity. I hope you have a tremendous learning and joyful time at CIT. On behalf of all of us in the CIT family, I wish you all the best.

**Sri G.S. Basavaraj**  
**Chairman, CIT Group of Institutions**

## MANAGING DIRECTOR'S MESSAGE



It has been a wonderful journey since the inception of CIT in 2001! It may have been fraught with some challenges, but ultimately it has been a rewarding experience in every possible way. The unrelenting efforts of our team have taken CIT to heights that very few had imagined possible. When we look back, we realize the wonderful ideals we started with: progress, innovation and excellence. We also realize our role for the social responsibility, whereby we have taken many philanthropic initiatives. I remain hopeful that as you browse through the pages of this website, my words will reverberate through the content, and that the strength and beauty of CIT will be reflected to you as well. On behalf of all of us in the CIT family, I wish you all the best.

**Sri G.B. Jyothi Ganesh**  
**Managing Director & Secretary,**  
**CIT Group of Institutions**

## DIRECTOR'S MESSAGE



CIT was established with the aim of providing quality education at par with international standards. In a short span of 10 years the Institute has achieved a remarkable place amongst the foremost engineering colleges. With the fast changing technology and international scope for engineering, our mission is to leverage quality education to prepare our students to gain the competencies to address the technical challenges and have long successful careers. The campus has a cosmopolitan atmosphere with students from all corners of the country. Experienced and learned teachers are strongly encouraged to nurture the students. The highly motivated youngsters on the campus are a constant source of pride.

Engineers of today face a world that continually demands new innovations, knowledge and ability to adapt in an ever changing scenario of new technology and competencies. They also need to be good communicators, be able to relate well with other people and to think critically and creatively. CIT is committed towards imparting all the above necessary skills to the students to make them as skilled engineers. Our Memorandum of Understanding with international universities, industries and National Laboratories are our major strength. With steady pace, we continue to excel in the field of engineering education. **"The Best way to predict your future is to create it"**

**Dr. D.S. Suresh, Ph.D**  
**Director and Professor**  
**(Department of Electronics and Communication Engineering)**

## **VICE- PRINCIPAL'S MESSAGE**



CIT is an educational institution of excellence, combining quality education with innovation. CIT places a high value on providing its students with a conforming educational experience in their chosen engineering discipline. It offers 6 different engineering courses to students, giving them a solid academic foundation and enabling them to achieve their goals and to excel in their career and life.

Dedicated and talented team of CIT faculty actively encourage and support students to excel, where students demonstrate high level of motivation and capacity to work towards their endeavours and also a strong partnership exists with the Parent community. It is so proud to see CIT moving ahead and be known in the entire university as a college that believes in knowledge and discipline. CIT is a destination to find a way to accomplish your desiring dreams.

**Dr. Shantala.C.P**  
**Vice-Principal & HOD of Computer Science & Engineering**

## **CHIEF ADVISOR'S MESSAGE**



Sir Isaac Newton once said, "If I have seen farther than other men, it is because I have stood on the shoulders of giants". What he meant, of course, was that knowledge is a cumulative, slowly developing thing; others before us have seen and discovered much, and therefore we can see farther and continue to innovate. If you want to do new things, then you better know about old things, and you better know a broad collection of what is known. What better place, other than CIT, to learn the broad collection of what is known and take the first step to innovate and discover newer things.

Since its inception some 10 years ago, CIT has made its mark as a top-quality institution providing excellent technical education to aspiring engineers. At CIT, we encourage our students to inquire and introspect. We inspire them to imbibe the spirit of inquisitiveness, imagination and innovation. To ensure that our students leverage their strengths and acquire key skills, we have created multiple platforms that lead them to a journey of self discovery and realization of true potential. I welcome you to be a part of an institution without boundaries where even the sky is not the limit to realizing your dreams.

**Dr. K. N. Sridhar Rao, Ph.D.**

**Chief Advisor (Academics & Research)  
Professor (Department of Computer Science and Engineering)**

## **MISSION OF THE DEPARTMENT**

The mission of the department is to provide requisite foundation to our students in Mechanical Engineering provide cutting edge laboratory resources to bridge the gap between theoretical and practical concepts provide exposure to various mechanical industries through periodic industrial visits enhance our students skill set and to make them industry ready by systematic skill development program.

## **VISION OF THE DEPARTMENT**

To create state of the art learning environment to nurture the learning, blending human values, academic professionalism and research process in the field of mechanical engineering for the betterment of society.

## **ABOUT OUR DEPARTMENT**

Mechanical Engineering is one of the oldest and broadest engineering disciplines. Though, the development of Mechanical Engineering can be traced back to several thousand years around the world, Mechanical engineering emerged as a prominent field during the industrial revolution in Europe in the 18th century. Mechanical Engineering emphasizes on Design, Materials & Manufacturing, Thermal Engineering, and also interdisciplinary areas like CAD/CAM/CAE, Automation, Operational Research, Mechatronics, FEM, Managerial Aspects of Industry, etc. The field has continually evolved to incorporate advancements in technology, and mechanical engineers today are pursuing developments in such fields as composites, Mechatronics, and nanotechnology. Mechanical engineering overlaps with aerospace engineering, civil engineering, electrical engineering, petroleum engineering, and chemical engineering to varying amounts.

At CIT, the Mechanical Engineering branch started in the academic year 2010 with an annual intake of 60 students and intake was increased to 120 in the academic year 2012-13. Department has a VTU recognized Research center for doctoral studies and runs a course on 'Lathe Operator' under the central Government scheme PMKVY. The department has state-of-the-art laboratories equipped with modern equipment. The department continually strives for the comprehensive development of its students & faculty by carrying out many activities like Faculty Development Programs, taking students to various industries for visits, conducting workshops on the recent technologies, calling in experts from both industry and academia for expert lectures, conducting various Vocational Training Programs to impart some specific skills apart from syllabi.

This new letter highlights the students and faculty achievements during odd and even semester 2017-18.

**Professor and Head**

## STUDENTS PAPER PRESENTATION

Sl. No	Date	Title of the conference	Student Names	Title of the Paper	Held at
01	12/10/2018	National Conference on Technology for Rural Development (NCTFRD-18)	Mohan N (1CG15ME048) Kiran Babu R (1CG15ME061) Dhanush M.G (1CG14ME123)	Mobile groundnut decorticator	C. I. T. Gubbi, Karnataka
02	12/10/2018	National Conference on Technology for Rural Development (NCTFRD-18)	Harshith KB (1CG15ME025) Bhyresh N.S (1CG15ME010) Darshan s (1CG15ME016)	Copra skimming machine	C. I. T. Gubbi, Karnataka
03	27/10/2018	ATMOS-BITS PILANI Hyderabad campus	Harshith KB (1CG15ME025) Kiran babu (1CG15ME061) Rohith C.N (1CG15ME070)	Copra skimming machine	Hyderabad campus, Karnataka

## WORKSHOP ATTENDED BY THE STUDENTS

Sl. No	Resource Persons	Workshop topic	Attended	Date	Conducted by
1	Mr. Shree Harsha H, Technical Trainer CADD Center Tumakuru	Computational Fluid Dynamics	Mechanical Engineering Students	28/8/2018	Mechanical Engineering Department, CIT, Gubbi.
2	Mr. Nithin K, CAD Engineer Edu.CADD Learning Solutions, Tumakuru	Application of NX-CAD	Mechanical Engineering Students	29/8/2018 and 30/8/2018	Mechanical Engineering Department, CIT, Gubbi.

## BEST PAPER PRESENTATION

Sl. No	Date	Title of the conference	Student Names	Title of the Paper	Held At	Prize
01	12/10/2018	National Conference on Technology for Rural Development (NCTFRD-18)	Mohan N (1CG15ME048) Kiran Babu R (1CG15ME061) Dhanush M.G (1CG14ME123)	Mobile groundnut decorticator	C. I. T. Gubbi, Karnataka	1 <sup>st</sup> place

03	27/10/2018	ATMOS-BITS PILANI Hyderabad campus	Harshith KB (1CG15ME025) Kiran babu (1CG15ME061) Rohith C.N (1CG15ME070)	Copra skimming machine	Hyderabad campus Karnataka	2 <sup>nd</sup> place
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## STUDENTS ACHIEVEMENT IN THE SPORTS

Event	Venue	Date of Event	Student Name	USN	Semester
Cricket Selection	JNNCE Shivamogga	21 <sup>st</sup> & 22 <sup>nd</sup> Sep 2018	a) Yogesh B.C b) Joel Alexander	1CG15ME100 1CG16ME036	VII <sup>th</sup> V <sup>th</sup>
Through Ball	BIT Davangere	9 <sup>th</sup> & 10 <sup>th</sup> Oct 2018	a) Bhoomika	1CG18ME011	I <sup>st</sup>
Athletics	SJCIT Chickballapur	26 <sup>th</sup> to 29 <sup>th</sup> Nov 2018	a) Mohammed saqib b) Yogesh B.C c) Santhosh B d) Rahul gowda e) Harish kumar	1CG18ME035 1CG15ME100 1CG16ME010 1CG15ME064 1CG16ME023	I <sup>st</sup> VII <sup>th</sup> V <sup>th</sup> VII <sup>th</sup> V <sup>th</sup>

## FACULTY PAPER PUBLICATIONS

Sl. No	Faculty Name	Topic	Journal	Volume & Date
1	Giridhar S Kulkarni Dr. Siddeshkumar N.G.	Dry sliding wear behaviour of GFRP with liquid silicon rubber and reinforced with fine aluminium powder/silica powder by taguchi approach.	AIP Conference Proceedings	2057,020056 (2019), 020056-1- 020056-8.
2	Dr. Siddeshkumar N.G.	Analysis of dry sliding wear behaviour of the nano composites using statistical methods with an emphasis on temperature effect.	Measurement (Elsevier)	107(2017) pp1-11
3	Mr. Natesh C P	Experimental studies on turning of AISI 316 Lusing Modified Neem Oil as Straight Cutting Oil.	International Journal of Science & Engineering Research	Vol 9, Issue 7, July 2018, pp142-145.
4	Mr. S B Nagesh,	Experimental Investigation on Manifold Injection of Diesel and Biodiesel in a HCCT Engine with Inlet Charge Heating	European Journal of Sustainable Development Research	2(4) 45 2018 , pp1- 12

5	Mr. Kiran Gowd M R	Emission Characteristics Of Two- Stroke Si Engine With Direct Fuel Injection (Dfi)	Journal of Engineering Research and Application	ISSN : 2248-9622 Vol. 8, Issue 10 (Part -II) Oct 2018, pp 30-35
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## RESEARCH SCHOLARS REGISTERED IN 2018-19

Sl No	Name of the Research Scholar	Year of Registration	University	Name of the Guide	Research Topic
1	Mr. Rohith M S	2018-2019	V.T.U, Belgaum	Dr. R H Jayaprakash	Investigation on Mechanical, Wear Behavior and Machining Characteristics of Cu-HMMC's.

## FACULTY ACHIEVEMENTS



Mr. Harikiran M P successfully completed the NPTEL Online Certified Course titled "Manufacturing of Composites", with a consolidated score of 81%, which was conducted by IIT, Kanpur during Aug-Sep 2018.

**Mr. Harikiran M P**

## INTERNATIONAL CONFERENCES ATTENDED BY THE FACULTIES

Sl. No	Faculty Name	Title of the paper	Conference	Date
1	Mr. Nagesh S B Dr.Sridhar S	Performance Test on 4-Stroke Single Cylinder Diesel Engine Using Diesel Blended With Corn Ethanol As Fuel.	International Conference on Topical Transcends in Science, Technology & Management.	17 <sup>th</sup> to 18 <sup>th</sup> Aug 2018
2	Dr. Siddeshkumar N G	Effect of Process Parameters on Cutting Force and Surface Roughness in	International Conference on Green Trends in Mechanical Engineering Science	3 <sup>rd</sup> to 5 <sup>th</sup> Oct 2018

		Machining of DSS 2205 using Taghuchi' Approach.	(GTNES-2018) held at Malnad College of Engineering, Hassan, Karnataka.	
3	Mr. Natesh C P	Preparation and Characterization of Transformer Oil Based Nano Fluids	International Conference on Green Trends in Mechanical Engineering Science (GTNES-2018) held at Malnad College of Engineering, Hassan, Karnataka.	3 <sup>rd</sup> to 5 <sup>th</sup> Oct 2018
4	Mr. Giridhar S Kulkarni Dr. Siddeshkumar N G	Dry sliding wear behaviour of GFRP with liquid silicon rubber and reinforced with fine aluminium powder/silica powder by taguchi approach.	International Conference on Polymer Composites ICPC 2018 held at NITK, Surathkal, Karnataka.	15 <sup>th</sup> to 16 <sup>th</sup> Dec 2018

## NATIONAL CONFERENCES ATTENDED BY THE FACULTIES

Sl. No	Faculty Name	Title of the paper	Conference	Date
1	Mr. Natesh C P	Experimental studies on turning of AISI 316L using Modified Neem Oil as Straight Cutting Oil	National Conference on Alternative Methods to Resolve Energy Crisis held at KVG College of Engineering, Sullia.	18 <sup>th</sup> & 19 <sup>th</sup> June 2018
2	Dr. Sridhar.S	Microscale Bigas for Rural Household	National Conference on Technology for Rural Development, C I T, Gubbi, Tumkur.	12 <sup>th</sup> & 13 <sup>th</sup> Oct 2018
3	Mr. Giridhar S Kulkarni	Effect of Developing a Copra Skimming Machine on Rural Economics	National Conference on Technology for Rural Development, C I T, Gubbi, Tumkur.	12 <sup>th</sup> & 13 <sup>th</sup> Oct 2018
4	Mr. Nagesh S B	Design and Development Mobile Groundnut Decorticator.	National Conference on Technology for Rural Development, C I T, Gubbi, Tumkur.	12 <sup>th</sup> & 13 <sup>th</sup> Oct 2018
5	Mr. Hari Kiran M P	Study on Machining Characteristics of Al6061/SiCp/Gr MMC's	National Conference, NCETERM-Delta 2018 held at GMIT, Davanagere.	26 <sup>th</sup> & 27 <sup>th</sup> Oct 2018



## LIST OF STUDENT PROJECT SUBMITTED TO KSCST

### Details of KSCST Project Proposal Submitted to KCST for Academic Year 2018-19

Sl. No	Title of the Project	Guide name	Student Team Leader
1	Regeneration of electricity from rotating element	Mr.GiridharS.Kulkarni	Mr.Harshith KB
2	Design and fabrication of self charging electric vehicle	Dr.Siddesh Kumar N G	Mr.Darshan S
3	Mechanical and Wear properties of hybrid metal matrix composites	Mr.Ravi N S	Mr.Harish V
4	Treadmill walking e-bike	Mr.KiranGowd M R	Mr.Abhilash M R
5	Remote controlled strumming of areca nuts using ergonomically stable unmanned aerial vehicle	Mr.Nagesh S B	Mr.Mohan N
6	Preparation and performance analysis of diesel engine using mustard oil as a biodiesel	Mr.Sriharsha S R	Mr.Kotresh M L
7	Tribological studies on Milling AISI D2 using BIO Simaroubaglauca	Mr.Natesh C P	Mr.Subhash C M
8	Design and fabrication of solar operated multipurpose agricultural chopper	Mr.Natesh C P	Mr.Sudeep D I
9	Performance test on 4 stoke single cylinder diesel engine by using cotton seed oil as biodiesel	Mr.Harshith H S	Mr.TejasHiraskar N
10	Study on mechanical and wear behaviour of copper hybrid metal matrix composites	Mr. Rohith M S	M. Gowtham L
11	Air conditioner cum refrigerator using E-waste	Mrs.Thara R	Mr.Niranjanaradhya N
12	Ragi cutter and grain separation with dryer in a single equipment	Mr.Thejomurthy M C	Mr.Rohith C N

## PROPOSALS SUBMITTED TO FUNDING AGENCIES BY FACULTIES

SI No	Name of the Coordinator	Title of the Project	Funding Agencies	Scheme	Date of Submission
1	Dr. R H Jayaprakash	Synthesis and Characterization of Al HMMCs for High Temperature Tribological Applications	VGST	K-FIST Level 1	6/10/2018
2	Mr.Giridhar S Kulkarni	Setting up of "PTC Technology Centre under K-FIST 2"	VGST	K-FIST Level 2	6/10/2018

3	Dr. Siddeshkumar N G	Development, Characterization and Wear Behaviour of Cermet Composite Material for Space Rocket and Airplane Jet Engine at high temperature	VGST	Centre of Excellence on Science, Engineering and Medicine (CESEM)	6/10/2018
4	Dr. Sridhar S	Microscale Biogas Production for Rural Household	VGST	K-FIST Level 1	6/10/2018
5	Dr. Siddeshkumar N G	-	VGST	Award for Research Publications (ARP)	6/10/2018
6	Dr. Siddeshkumar N G	Dry Sliding Wear Behaviour of Nano Metal Matrix Hybrid Composites for Automobile Applications	SERB	Early Carrier Research Award	2/08/2018

## FACULTY DEVELOPMENT PROGRAM (FDP)

SL No	Name of Staffs Attended	FDP	Date	Resource Persons	Venue
1	All Mechanical Staffs of C.I.T Gubbi	"Computational Methods and Technologies, Theory of Failures and Turbo Machines"	26.07.2018 and 27.07.2018	<p><b>1.</b> Mr. Mallesh Executive Engineer, Yettinahole Project, PWD, Tumakuru</p> <p><b>2.</b> Mr. Santhosh N L Director &amp; CEO, DHIO Research and Engineering Pvt Ltd., Bangalore</p> <p><b>3.</b> Dr. R Suresh Professor, Dept. of Mechanical Engg, SIT, Tumakuru.</p> <p><b>4.</b> Dr. D S Ramakrishna Professor, Dept. of Mechanical Engg, JNNCE, Shivamoga.</p>	CAED Lab C.I.T Gubbi

## DEPARTMENT ACTIVITIES

### PERSONALITY DEVELOPMENT CLASS 2017-18

Sl. No	Title	Date	Trainers	No. of Participants
1	Project planning and management	18/04/17	Mr. Prasanna Dodamani Synergy India, Bangalore	All 6th semester students
2	Carrier Opportunities in Mechanical Engineering and Skill Enrichment Programs	20/09/2017	1.Mr. Sharankumar K P 2. Mr. Vinaykumar Magnus global Tech, #874, Modi Hospital Road, Basaveshwara Nagar, Bengaluru 86	3rd Year mechanical students

### WORKSHOPS ORGANIZED

#### One Day Workshop on "Bio Fuel".

CIT College Gubbi & SIT Tumakuru, association with The Institution of Engineers Tumakuru Local centre has jointly organized and conducted the one day Workshop on "Bio Fuel" for sixth semester students of mechanical engineering, CIT Gubbi, on 08<sup>th</sup> May 2018.



#### One Day Workshop on "Mobile Expotainer"

The program was focused on the attainment of professional competency by all trainees. Training equipment was setup with purely industrial components and enables students to work hands- on with real manufacturing processes in process automation. Students gained the knowledge about current trends in automation products and their application. This was jointly organized with Festo Bangalore and conducted the one day Workshop on "Mobile Expotainer" for sixth semester students of mechanical engineering, CIT Gubbi, on 12 April 2018.

#### One Day Workshop on "Industrial Automation and Robotics"

This work shop provides students with an integrated knowledge required for the design and implementation of industrial automation systems. Students will be able to solve real-

world problems using the knowledge they acquired in the session. This was jointly organized with Festo Bangalore and conducted the one day Workshop on “**Industrial Automation and Robotics**” for sixth semester students of mechanical engineering, CIT Gubbi, 24 April 2018.

### GUEST LECTURES DELIVERED

SI No	Resource Persons	Event	Date	Venue
1	Mr. Prasanna Dodamani Synergy India, Banglore	Invited talk on Project planning and management	18/04/2017	CIT, Gubbi
2	Mr. Sharankumar K P and Mr, Vinaykumar Magnus global Tech, #874, Modi Hospital Road, Basaveshwara Nagar, Bengaluru	Carrier Opportunities in Mechanical Engineering and Skill Enrichement Programs	20/09/2017	CIT, Gubbi
3	Mr. Sameer Khan Team Lead FESTO Bengaluru	Workshop on Mobile Expotainer	12/04/2018	CIT, Gubbi
4	Mr. Ugesh and Mr. Sameer Khan FESTO Bengaluru	Seminar on Industrial Automation and Robotics	24/04/2018	CIT, Gubbi

### INDUSTRIAL VISITS

Sl. No	Industry Name	Date of Visit	Semester & Section	No of students	Faculty co-ordinator
1	Fitwel Forgings Pvt. Ltd. & Kavitha Metals work, Tumakuru	22/09/2018	3 <sup>rd</sup> A	52	Dr. Jayaprakash Raghavendra T R Sri Harsha
2	CIM Tools India Pvt Ltd Devanahalli, Bangalore	29/09/2018	7 <sup>th</sup> B	36	Dr. Jayaprakash Manjunath N Raghavendra T R
3	Heidelberg Cement India limited Ammasandra, Tumkur	27/10/2018	5 <sup>th</sup> A	41	Dr. Jayaprakash Natesh C P
4	Heidelberg Cement India limited Ammasandra, Tumkur	27/10/2018	5 <sup>th</sup> B	42	Srinivas P Patil Narasimhamurthy K C

The department organized industrial visits to Fitwel Forgings Pvt. Ltd. & Kavitha Metals work, Tumakuru, CIM Tools India Pvt Ltd Devanahalli, Bangalore and Heidelberg Cement India limited, Ammasandra, Tumkur on 22/09/2018, 29/09/2018 and 27/10/2018; 52,36,41 and 42 students respectively from Third, Fifth and Seventh semesters are visited to industries.

