



# MALNAD COLLEGE OF ENGINEERING

(AN AUTONOMOUS INSTITUTION UNDER VTU, BELAGAVI)  
HASSAN, KARNATAKA 573202, INDIA

## Computer Science and Engineering

Newsletter: Jan– July 2019

### Institute Vision

*“To be an Institute of Excellence in Engineering education and research, producing socially responsible professionals”*

### Institute Mission

- ◆ Create conducive environment for learning and research.
- ◆ Establish industry and academia collaboration.
- ◆ Ensure professional and ethical values in all institutional endeavors.

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**The Malnad College of Engineering (MCE)** is an engineering college located in Hassan, Karnataka, India. It was established in 1960 during the second 5 year plan of India, as a joint venture between the Government of India, Government of Karnataka and the Malnad Technical Education Society, Hassan. The institution is affiliated with the Visvesvaraya Technological University in Belagavi. The college is a reputed institution in the country. The college has received the Best Engineering College

award by the Indian Society for Technical Education (ISTE) during the year 2007.

The college is built on a campus of about 44 acres and is a technical education center. At present, the college conducts 9 B.E. programs and 5 M.Tech Programs and the MCA program and has 2750 students on its rolls. All programs have got NBA accreditation under Tier-I. The college is one amongst 19 Engineering colleges in the state qualified for the Technical Education Quality Improvement.



### VISION

“To become a prominent department of Computer Science & Engineering producing competent professionals with research and innovation skills, inculcating moral values and societal concerns”



## About the Department

The department of Computer Science & Engineering was established in the year 1983 and the department offers Bachelor of Engineering degree in Computer science and Engineering with an intake of 180 students. This degree programs prepare graduates for successful, profitable and lifelong careers in Computer Science & Engineering. Computer Science and Engineering students study hardware and software systems through innovative classroom instructions, supported by laboratories equipped with the state of the art hardware and software. The department ensures that the students are introduced to both fundamental and advanced knowledge in areas such as Machine learning, Networking technology, computer security and software engineering etc.

### *Salient Features of the department are as follows.*

- ◆ The department has got NBA accreditation under Tier-I.
- ◆ The VTU has recognized the department as a research center for carrying out research work leading to M.Sc. Engg. & Ph.D degrees.
- ◆ State of the Art Computing Facilities.
- ◆ ICT in Teaching and Learning.
- ◆ Teacher as Mentor.
- ◆ Research & Publications with Social Impact.
- ◆ Supportive Learning for Placements.
- ◆ Professional Development for Industrial Engagement.

The department is regularly organizing several seminars, workshops, Conference, FDPs and Industry institution Interaction programs to help the faculty members and students to update their knowledge about the latest developments.

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## *Program Educational Objectives*

- ◆ **PEO 1:** Graduates will be efficient software developers in diverse fields and will be successful professionals and/or pursue higher studies.
- ◆ **PEO 2:** Graduates will be capable to adapt to new computing technology for professional excellence and Research and will be lifelong learners.
- ◆ **PEO 3:** Graduates will work productively exhibiting ethical qualities for the betterment of society.
- ◆ **PEO 4 :** Graduates will possess leadership qualities, work harmoniously in a team with effective communication skills.



## Mission

- ◆ Provide learning ambience to generate innovative and problem solving skills with professionalism.
- ◆ To create facilities and expertise in advanced computer technology thereby promote research.
- ◆ Enhance Industry Institute Interaction program to get acquainted with corporate culture.
- ◆ To induce ethical values and spirit of social commitment.



## Two days workshop on Advanced Web Development with SEO & Digital Photography on 22nd and 23rd Feb. 2019

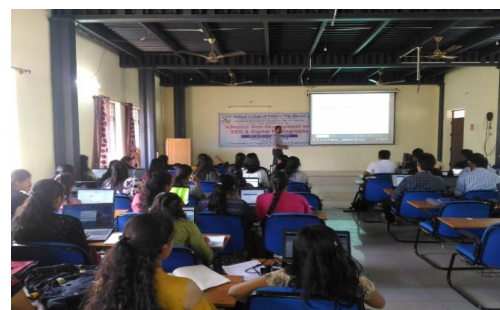


To bridge the gap between Industry and Institute and as well for better placement opportunities, Department of Computer Science and Engineering, MCE, Hassan has organized two day workshop on “Advanced Web Development with SEO and digital photography” on 22<sup>nd</sup> and 23<sup>rd</sup> February 2019 for the students of 6<sup>th</sup> SEM, under TEQIP-III.

The two day workshop started with a formal inaugural function, Dr K.S. Jayantha, Principal, MCE, Hassan, presided for the inaugural function. Dr B Ramesh, Professor, Dept of CS&E, MCE, Hassan welcomed the dignitaries to the function. Dr. Chandrika. J Professor and Head, Dept of CS&E, MCE, Hassan has presented and given the vote of thanks on this occasion. All the staff member of Department of Computer Science and Engineering were presented in the inauguration function.

Objective of the workshop was developing a dynamic web site/application using various modern tools and developing a SEO-Friendly website.

The workshop had Mr. Praveen and team from Edulife, Bangalore as speakers and received an overwhelming response from participants.



Whole workshop is coordinated by Dr. B Ramesh, Professor Dept. of CS&E. The workshop began with html, CSS client side scripting language, Javascript. Students were taught how to install and use XAMPP and Drupal. XAMPP is an easy to install Apache distribution for Windows, Mac OS X, Linux and Solaris. The package includes the Apache web server, MySQL, PHP, Perl, a FTP server and phpMyAdmin and Drupal which is a free and open-source content management framework written in PHP and distributed under the GNU General Public License. The entire session was very informative and interactive. By the end of the workshop students were asked to design and develop their own website. The website helped them to have hands-on experience about how actual website designing, development and hosting takes place.



*“You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.”*

— **Buckminster Fuller**

## Invited Lecture on Effective Research



Department of CS&E, MCE, Hassan has organized a invited Lecture on Effective Research on 20th May, 2019 at MCE, Hassan under TEQIP-III. The program was officially inaugurated by the lighting lamp. Dr. K.S Jayantha, Principal, Resource Persons Prof. Dr. N. Sundararajan, EEE/Nanyang Technological University, Singapore, and Dr. B.S. Mahanand, Raman Fellow (Harvard) Associate Professor, Department of ISE, SJCE, Mysuru, MCE, Hassan, Dr. Chandrika J HOD, CS&E, Dr. B. Ramesh Professor CS&E, Dr. Jyothi N S, TEQIP Coordinator, other dignitaries and participants witnessed the inaugural function.



In recent times, many advances have occurred in the field of doing good research. The main objective of this program was to educate all those who are interested in doing good research. Sessions was highlight a systematic way of doing research and will enable one to pursue ways that will result in producing a good research work. The Program was tailored to be an interactive one where the audience can actively participate by asking questions or making comments based on their own experience. This Program was most beneficial to all the research scholars and the faculty who are pursuing and may be interested in pursuing doctoral research.





*“First we thought the PC was a calculator. Then we found out how to turn numbers into letters with ASCII — and we thought it was a typewriter. Then we discovered graphics, and we thought it was a television. With the World Wide Web, we’ve realized it’s a brochure.”*

— Douglas Adams

## Fifth National Conference on Multimedia Technology and Communication System (NCMTCS-2019)



Department of CS&E, MCE, Hassan has organized two-day Fifth National Conference under TEQIP-III on the topic “National Conference on Multimedia Technology and Communication System (NCMTCS-2019)” on 10<sup>th</sup> & 11<sup>th</sup> of May, 2019 at MCE, Hassan.

The conference officially inaugurated by watering the plant by the Chief Guest & keynote speaker of the conference Dr. K. Chidananda Gowda, Former Vice-Chancellor of Kuvempu University, Mysore, President of the function, Shri R T Dyvegowda, Honble Secretary MTES®, Guests of honor Shri. Shivaramu, Manager, MTES®, Dr. K.S Jayantha, Principal, MCE, Hassan, Vice-Principal Dr Raviprakash, Dr. Chandrika J, Professor & Head and Dr. Ramesh B, Conference Chair., Dr. Jyothi N S, TEQIP Coordinator, other dignitaries and participants witnessed the inaugural function. Invocation was rendered by Sindhura of VIII Semester of CS&E. Then, the welcome address was given

by Dr. Ramesh B, Conference Chair, CSE, MCE, Hassan with a warm welcome and a brief note about the conference. The Inaugural address was given by Dr. K.S Jayantha, Principal, MCE, Hassan. Chief Guest of conference Dr. K. Chidananda Gowda addressed the gathering and presidential remark was by Shri R T Dyvegowda, Honble Secretary MTES®, Hassan.



Conference Keynote Address by Dr. K. Chidananda Gowda

On the first day, 10<sup>th</sup> May 2019 there were Six sessions with distinguished panelists Dr. Pushpa RaviKumar, AIT, Chikmagalur, Dr. Prasanna Kumar H R, PESITM, Shimoga, Mr. Yogesh, CISCO Systems, Bengaluru, Dr. V.N. Narayan, Dr. Chandrika J, Dr. Geethakiran A, Mr. Che-



*“It has become appallingly obvious that our technology has exceeded our humanity.”*

- Albert Einstein

On the second day, 11<sup>th</sup> May 2019 there were Four sessions with Session Chairs, Dr. Lakshmi Narayana, BMSCE, Bengaluru Dr.Poornima, BMSCE, Bengaluru, Dr. Gowramma Y.P, Dr. J. Chandrika, Dr.Paramesh, GEC, Hassan, Dr. Manjunath Prasad,GSSSIETW, Mysore, Mr. Gururaj H. L. VVCE, Mysore accordingly.

In the valedictory session Shri. Ashok Harnahalli, Chairman, MTES®, presided the function. Chief Guest Dr. Lakshmi Narayana, BMSCE, Bengaluru, Shri Sheshagiri, Treasurer. MTES, Dr. Ramesh B Conference Chair, Vice-Principal Dr. Raviprakasha M S, Session Chairs Dr. Paramesha, GEC, Hassan, Dr. Poornima, BMSCE, Bangalore, Dr. Chandrika J Professor and Head, Department of Computer Science and Engineering, MCE, Hassan were present on this occasion. The best paper award as per the

evaluation of panel members was given by Shri. Ashok Harnahalli, Chairman, MTES, Hassan.



This conference has provided a platform for researchers and academicians to share and exchange ideas on the various research topics in the fields such as Computer Networks, Data Mining and Databases, Artificial Intelligence & Cryptography, Pattern Recognition , Image Processing and Multimedia technology.



Participants Group photo with Guests





*“Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important.”*

—Bill Gates

## Two Week AICTE FDP on “Gaining Insight Into Data Science & Data Analytics”



The department of computer science & Engineering, Malnad college of engineering, Hassan, has successfully organized two weeks FDP on “Gaining Insight Into Data Science & Data Analytics”, during 15th July 2019 to 27th July 2019. FDP was inauguration of the program was conducted in the presence of Shri R T Dyavegowda, Honorable Secretary, MTES, Principal Dr. K S Jayantha and PremKumar Director of Master Control Facility, a unit of ISRO Bangalore as the chief guest. Dr. Chandrika J, Professor & Head of department of CSE, Dr. Ramesh B Professor, Dr. Jyothi N S, TEQIP Coordinator, other dignitaries and participants witnessed the inaugural function. This FDP was funded by AICTE of Rs. 3.72 lakh and Coordinated by Dr. Chandrika J, Professor & Head of department of CSE.

The objective of FDP was intended to impart the major skills in the minds of growing researchers and faculties in various engineering domain engaged in teaching and R&D, in term of innovations and research. This program was designed to guide researchers and

professional in extracting implicit, previously unknown and potentially useful knowledge from large data sets, developing performance models and usage of optimization techniques.

- To familiarize with Data Science, big data Analytics and computing concepts.
- To train faculties to encourage students to take-up related projects with their academic environment.



**Participants of FDP**

The 40 faculty members from Engineering & Polytechnic Institutions are selected and should be provided with a platform to update themselves with the recent technological evolutions.





*“It has become appallingly obvious that our technology has exceeded our humanity.”*

- Albert Einstein

## Industrial Visits:

As a part of curriculum the Computer Engineering Department has arranged Industrial visits for better understanding of industry culture, ongoing projects and working of software companies. products and its operations. The students of our department have visited following Companies.

### Third year students visited *Spectrum Soft tech, Kochi*



The third year 39 students of our department are visited the Company *Spectrum Soft Tech, Kochi* on 1<sup>st</sup> & 2<sup>nd</sup> March 2019, and understand their on going projects and R&D activities of the company. Spectrum Softtech Solutions Pvt. Ltd., Kochi, Kerala was incorporated as a private limited company in 1998 with an objective of offering advanced technological solutions in the fields of Information Technology.

### Second year students visited ALS, Bangalore



The second year 50 students of our department are visited the Company *ALS, Bangalore* on 22<sup>nd</sup> Feb 2019, and understand their on going projects of the company.







*“Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important.”*

—Bill Gates

# Placements

Company Name	Number of students placed
EVERY India Pvt. Ltd.	03
Siemens Healthcare	03
TATA ELXS	03
ARICENT	08
Deevia software	01
TCS	08
ABC	01
Brillio	09
Work fusion	05
Pinclick	03
Infosys	02
HCL	01
Qspiders	02
Wolken Software	03
Spur Tree Technologies	01
Elcamino	01
Subex	01
Simeio Solutions	01
LOWE’S INDIA	01





## National and International Conferences

- Dr. Chandrika J, “Patient Diagnosis system with augmented Reality”, ICSPACE, March-2019.
- Sunitha R, Dr. Chandrika R, “ Enhanced non circular dynamic base station approach to Increase network lifetime of WSN” , IEEE International Conference, AIT, Chikkamagaluru, 25th & 26th July 2019.
- Mr. Tejonidhi M R, “IOT based smart security gadget for women safety”, ICAIT-2019, July,2019.
- Mr. Tejonidhi M R, “A survey on IOT middleware and image processing”, ICAIT-2019, July,2019.
- Mrs. Kavyasri M N, Mrs. Shruthi T R , “Driver fatigue detection using SVM classifier “, National Conference on Advances in Information Technology, SJB Institution of Technology, Bangalore, May 2019.
- Mrs. Kavyasri M N, Mrs. Ayesha Siddiqha , “Raspberry Pi based school bus monitoring system“, National Conference on Advances in Information Technology, SJB Institution of Technology, Bangalore, May 2019.
- APOORVA P, IMPANA H C, S L SIRI, VARSHITHA M R , “ Automated criminal identification by face recognition using open computer vision classifiers “, 3<sup>rd</sup> International conference on computing Methodologies and communication (ICCMC 2019), Surya Engineering college, 27<sup>th</sup> – 29<sup>th</sup> march 2019.
- POOJA K, RANI D, SONIKA G J, RASHI H R, “ Edu Block- A Block chain technology enabled application for Education “, 201<sup>st</sup> international conference on future trends in engineering , science and management held at new Delhi, India organized by international organization of scientific research and development, 27<sup>th</sup> march 2019.
- DARSHIKA M GOWDA, SINDHURA SHANKAR, VIDHYA SURESH, “Raspberry PI school bus monitoring system for child safety”,11<sup>th</sup> National conference on Advances in information Technology, SJBIT, Bangalore, 4th May 2019.
- NIKITHA B, KHADIJA AMEER, SHRUTHI T P, APEKSHA V , “ Driver fatigue detection using SVM classifier “ 11<sup>th</sup> National conference on Advances in information Technology, SJBIT, Bangalore, 4th May 2019.
- AISHWARYA, CHAITHRA K S, DAYANA M K, NAGAMMA H, “IoT based Smart security gadget for women safety“, 1<sup>st</sup> IEEE international conference on Advances in information Technology AIT, Chikkamagaluru, 25<sup>th</sup>-27<sup>th</sup> July 2019.

## National and International Journals

- Dr. B Ramesh, “An Analysis of Processing Multimedia Data in Mobile Ad Hoc Networks“, International Journal of Computer Networks And Applications (IJCNA), DOI: 10.22247/ijcna/ 2019/49587, March 2019.
- YUVARAJ B V, SATWIK J, PAVAN M K, SHANKARNAG M, “An Android based intelligent Robot for Border security “, International journal of computer science and Mobile computing volume 8 , issue 2, ISSN:2320-088X, February 2019.
- VICKY PRINCE V, SHARATH KUMAR, SHASHANK R, SHREESHA S R, “Accident intensity detection and Reporting”, International journal of computer science and Mobile computing volume 8 , issue 3 ISSN:2320-088X, March 2019.





- RASHMI M, “ A survey on technique used for Deblurring license plate of fast moving vehicles using sparse representation“, International journal of computer science and Mobile computing volume 8 , issue 5, ISSN: 2320-088X, May 2019.

Student Name	Event	Place	Date
Bharath C S	PRASTUTI-A: A National level paper presentation.	JNNCE, Shivamogga	26 <sup>th</sup> -28 <sup>th</sup> April 2019
Noor Ayesha	Participated in the National level paper presentation. Enigma: The Annual state-level technical fest.	MCE, Hassan	14 <sup>th</sup> April 2019
AMRUTHESH S M	PRASTUTI-A:A national level paper presentation.	JNNCE, Shivamogga	26 <sup>th</sup> -28 <sup>th</sup> April 2019
	Participated in technical paper presentation event conducted on the occasion of state level intercollegiate cultural , Technical and Management fest :Sentia.	Mangalore Institute of Technology and Engineering	2019
	Participated in 32 <sup>nd</sup> CSI Karnataka Students Convention Jointly Organized by Computer Society of india, Bangalore Chapter-V and Dept of CSE ,ISE and MCA of Cambridge institute of	Cambridge institute of Technology, Bangalore	1 <sup>st</sup> and 2 <sup>nd</sup> March 2019
	Janani 2018: 19 <sup>th</sup> VTU youth Fest	Bheemanna Khamd्रे Institute of Technology, Bhalki	2 <sup>nd</sup> and 4 <sup>th</sup> November





### Upcoming Events

- ◆ Workshop on Machine Learning with Python.
- ◆ Orientation for III semester students.



## GENERAL INTELLIGENCE



**General Intelligence**, also known as *g* factor, refers to the existence of a broad mental capacity that influences performance on cognitive ability measures. Charles Spearman first described the existence of general intelligence in 1904. According to Spearman, this *g*-factor was responsible for overall performance on mental ability tests. Spearman noted that while people certainly could and often did excel in certain areas, people who did well in one area tended also to do well in other areas. For example, a person who does well on a verbal test would probably also do well on other tests. Who hold this view believe that intelligence can be measured and expressed by a single number, such as an IQ score. The idea is that this underlying general intelligence influences performance on all cognitive tasks. General intelligence can be compared to athleticism. A person might be a very skilled runner, but this does not necessarily mean that they will also be an excellent figure skater. However, because this person is athletic and fit, they will probably perform much better on other physical tasks than an individual who is less coordinated and more sedentary. Charles Spearman was one of the researchers who helped develop a statistical technique known as factor analysis. Factor analysis allows researchers to a number of different test items that can measure common abilities. For example, researchers might find that people who score well on questions that measure vocabulary also perform better on questions related to reading comprehension.

Spearman believed that general intelligence represented an intelligence factor underlying specific mental abilities. All tasks on intelligence tests, whether they related to verbal or mathematical abilities, were influenced by this underlying *g*-factor.

Many modern intelligence tests, including the Stanford-Binet, measure some of the cognitive factors that are thought to make up general intelligence. These include visual-spatial processing, quantitative reasoning, knowledge, fluid reasoning, and working memory.

- ◆ Quantitative reasoning involves the capacity to solve problems that involve numbers.
- ◆ Visual-spatial processing involves such abilities as putting together puzzles and copying complex shapes.
- ◆ Knowledge involves a person's understanding of a wide range of topics.
- ◆ Fluid reasoning involves the ability to think flexibly and solve problems.
- ◆ Working memory involves the use of short-term memory such as being able to repeat a list of items.

### General Intelligence Challenges

The notion that intelligence could be measured and summarized by a single number on an IQ test was controversial during Spearman's time and has remained so over the decades since. Some psychologists, including L.L. Thurstone, challenged the concept of a *g*-factor. Thurstone instead identified a number of what he referred to as "primary mental abilities." More recently, psychologists such as Howard Gardner have challenged the notion that a single general intelligence can accurately capture all of human mental ability. Gardner instead proposed that different multiple intelligences exist. Each intelligence represents abilities in a certain domain such as visual-spatial intelligence, verbal-linguistic intelligence, and logical-mathematical intelligence.

Research today points to an underlying mental ability that contributes to performance on many cognitive tasks. IQ scores, which are designed to measure this general intelligence, are also thought to influence an individual's overall success in life. However, while IQ can play a role in academic and life success, other factors such as childhood experiences, educational experiences, socio-economic status, motivation, maturity, and personality also play a critical role in determining overall success.

- Deepthi M G  
3 year CSE