

# INSTITUTE OF TECHNOLOGY AND MANAGEMENT





### BMS INSTITUTE OF TECHNOLOGY & MANAGEMENT

Affiliated to VISVESVARAYA Technological University, Belagavi
Accredited by NAAC

# Founder's Vision



Promoting prosperity of mankind by augmenting human resource capital through quality education



Late Sri B.M. Srinivasaiah Founder,BMSET and training

Late Sri B.S. Narayan Donor Trustee, BMSET

<u>VISION:</u> To emerge as one of the finest technical institutions of higher learning to develop engineering professionals who are technically competent, ethical and environment friendly for betterment of society.

MISSION: Accomplish stimulating learning environment through high quality academic instruction, innovation and industry-institute interface.

The history of BMS institutions rewinds back to the year 1946 with the establishment of the first private engineering college in the country, BMS College of Engineering (BMSCE), by late Sri B.M Sreenivasaiah. He was a philanthropist and a great visionary who realised the necessity of technical education even before the country got independence. He was honoured by the Maharaja of Mysore with the title "Dharma Prakasha Raja Karya Prasaktha" for his extraordinary service in the field of education. The legacy he once began is being upheld with the same zeal by his inheritors and they continue to cherish his vision and ideals.

BMS Institute of Technology (BMSIT), established in the year 2002 is one of the six institutions under BMS Educational Trust, being managed by a council of trustees appointed by Dr. B.S. Ragini Narayan, the successor of Late Sri B.S Narayan and the donor trustee and Member Secretary of BMS Educational Trust and it is one of the best engineering college in bangalore.

BMSIT&M, an institution with a class of its own, is one of the most sought after institutes for high quality engineering education in the state. It is a well established private engineering college in bangalore recognized by the AICTE, Government of India and is affiliated to the Visvesvaraya Technological University (VTU), Belagavi. With its modern infrastructure, highly qualified and committed faculty, and active industry engagement, the institute has been recognised as an "Emerging Technical Institute in the state of Karnataka" by the VTU.



#### PRINCIPAL'S MESSAGE

Hello! Welcome to BMS Institute of Technology & Management, a constituent of the highly reputed BMS group of institutions.

The "BMS" has not become a Brand by chance. It has been the outcome of exemplary vision, meticulous effort and undivided commitment of all its stakeholders over decades. Today, education at BMS institutions is a dream of every one who aspires to be a leader in Engineering, simply because these institutions have in place, perfectly functional systems. The system at BMS Institute of Technology and Management (BMSIT&M) is perfect as all its subsystems have been designed keeping in view the vision and mission of the institute, they gel well with each other, operate synchronously, and undergo continuous improvements. This holistic approach to education is what distinguishes BMSIT&M from others.

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https://www.youtube.com/channel/U CZLUwjJYZZvXvfPketkZZMQ/featured

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#### **Faculty Achievements:**

- 1. Dr. Santhi Natarajan, Associate Professor, AIML, has been invited to be part of the curriculum committee for the newly launched MTech Course on Artificial Intelligence by the APJ Abdul Kalam Technological University, Kerala.
- 2. Department of Mechanical Engineering was involved in the fabrication of FIVE varieties of "Foot operated sanitizer dispenser system". All the Technical staff members with the guidance of Faculty members fabricated the system in the Machine Shop.



# Faculty Recognitions/Academic responsibilities:

- 1. Dr. Bharathi M A, Professor and Head, AI&ML was a BOE member for MSRIT on 22/5/2020.
- 2. Dr. Karabi Sikdar selected as a Panel of External Members of the Doctoral Committee (Ph.D) at Vellore Institute of Technology (VIT) since 22<sup>nd</sup> May, 2020.
- 3. Dr. Arunkumar B.R, Professor, Dept. of MCA, BOS Chairman, MCA, VTU, attended an online Joint BOS meeting on 18<sup>th</sup> May, 2020 on WebEx platform.

#### **Faculty as Resource Person:**

1. Dr. Vijayalakshmi G V, Associate Professor, Department of ECE has extended her support as Resource person in Two week online refresher course / FDP on Recent trends on "Information, Computing, Communication and Teaching methodology competency" organized by the departments of CSE, ECE and IT of Sri Sairam Engineering College from 4th to 17th May 2020.

- 2. Dr. Dankan Gowda V, Assistant Professor, Department of ECE has extended his support as Resource person for Online Webinar on "Google LMS Tools for Online Teaching", from 18<sup>th</sup> to 19<sup>th</sup> May 2020 at Department of Computer Science and Engineering, East West Institute of Technology Bangalore.
- 3. Dr. Dankan Gowda V, Assistant Professor, Department of ECE has extended his support as Resource person for Online Webinar on "IoT Simulation using TinkerCAD", on 9<sup>th</sup> May 2020 at Department of ISE, Sri Krishna Institute of Technology, Bangalore.
  - 4. Dr. Dankan Gowda V. Assistant Professor, Department of ECE has extended his support as Resource person for Two Day's Workshop on "IoT Simulation using TinkerCAD" held on 28th and 29th May 2020 Department Electronics of Communication Engineering, Yenepoya Institute of Technology, Moodbidri, Mangalore, Karnataka.
- Prof. Gireesh Babu C N, Assistant Professor, Dept. of ISE has extended their support as Resource person for 5 days Online training program- Mathematics for Data Science, from 11th to 15th May 2020 at L&T, CTEA Madh, Mumbai as part of EDP program. Prof. M.Sridevi, Asst. Professor, Dept. of MCA has extended her support as resource person for the online corporate training program conducted on "Mathematics for Data Science" for the employees of L&T through Corporate Technology Engineering Academy, Larsen & Toubro, Madh, Mumbai from 11<sup>th</sup> to 15<sup>th</sup> May, 2020.
- 7. Dr. Daruka Prasad B, Assistant Professor, Physics extend his support as a resource person for the FDP Program on "Physics of Materials" held at Jain University from 28-05-2020 to 30-05-2020. Topic of talk-Characterization Techniques for Nanoscale Materials on 29.05.2020.

#### **Faculty Awards:**

6.

• Dr. Bharathi M A, Professor and Head, AI&ML, received a Bronze medal from Alison Microsoft on May 27<sup>th</sup>, 2020.

#### **Student Awards/Recognition:**

- 1. Project titled "Rescue system for Road accidents" is selected for KSCST, 43<sup>rd</sup> Series of Student Project Programme: 2019-20. The team will get the financial assistance of Rs 4000. The project is guided by Prof. Mamatha K R of ECE and the students doing this project are ADITYA N RAO, ANANTH S BHAT and ANUBHAV of final year.
- 2. Project titled "Application of Deep neural networks for Real time detection of Arrhythmia using wearable ECG signal analysis" is selected under AVISHKAR project competition, VTU. The team will get the financial assistance of Rs. 5000. The project is guided by Prof. Saneesh C T of ECE and the students doing this project are SUHAS T G, SURABHI B SESHADRI, V SASHANK REDDY and SANKESH BOTHRA G of final year.
- 3. Department of Mechanical Engineering VIII Semester students Mr. Kaushik Balasundar (1BY16ME032), Aby J Kottoor (1BY16ME002) and Akash S Nambiar (1BY16ME007) have designed and developed a semi-autonomous food and medicine delivery robot which has now been bought and deployed by Kodagu Institute of Medical Sciences at their COVID19 ward. The testing of the robot is currently underway at their hospital.



4. Jyothi. S of 8<sup>th</sup> semester ISE has secured third place in "DEBUG YOUR LOCK DOWN-HACK 2020", an online coding competition organized by ISTE-KARNATAKA SECTION held from 7<sup>th</sup> may to 9<sup>th</sup> may 2020.



#### **Out Reach Activity:**

1. Many faculty members have distributed the ration kits to our Garden staff as hospitality towards Covod-19 in May 2020. Dr. HemaMalini B H, Associate Professor, distributing the kits.



2. Prof. Chethana C, Assistant professor, CSE, Volunteer from Home: Department of Volunteer to record audio books for students with Visual Impairments )Blind(. The audio book recording assignment was done on 24th April 2020 and the deadline for submitting audio book recording was 04th May 2020. I was assigned with Subject: Biology chapters-4 on Bio-Technology Concepts )6 pages( and, Chapter5&6 is on Animal and Plant tissues Concepts )12pages( . The recordings were done Kannada Language.



#### **Reviewer for Journal / Conference:**

- Dr. Bharathi M A, Professor and Head, AI&ML was a reviewer for IEEE CONNECT 2020.
- 2. Dr. Shanti Chandra, Assistant Professor, Department of ECE was a reviewer for International Journal of Systems Science (Taylor & Ernation).
- 3. Dr. Shanti Chandra, Assistant Professor, Department of ECE was a reviewer for International journal of biomedical and clinical Engineering (IJBCE), IGI Global Publication.
- 4. Robin Singla, Assistant Professor, Department of ECE was a reviewer for Carbon an Elsevier publication.
- Dr. Madhu Palati, Assistant Professor,
   Department of Electrical and Electronics
   Engineering was a reviewer for ELSEVIER
   journal "Nuclear Instruments and Methods in
   Physics Research Section A: Accelerators,
   Spectrometers, Detectors and Associated
   Equipment".
- 6. Prof Swetha M S, Assistant Professors, Department of ISE has Technical Committee member of 2nd International Conference on Advanced Information Systems and

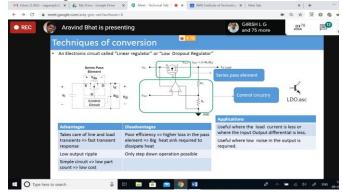
- Engineering (ICAISE 2020) Cairo, Egypt 2020 and reviewed around 5 technical Paper of the Conference.
- 7. Dr. Arunkumar B R, Professor, Department of MCA was a reviewer for Global Research and Development Journals for the article entitled "Women abuse Detection in Video Surveillance using Deep Learning" in May 2020.
- 8. Prof. Shivakumara T, Assistant Professor, Department of MCA was a reviewer for Global Research and Development Journals for the article entitled "E-Securing Home" in May 2020.
- 9. Dr. K. M. Sathish Kumar, Professor and HoD, Department of Mechanical Engineering was a reviewer for International Conference on "Futuristic Trends in Mechanical Engineering (ICOFTIME-2020) 2020" at Presidency University, Bengaluru, Karnataka.
- 10. Dr. Daruka Prasad B, Assistant Professor, Physics, Reviewed the Manuscript Number: JOLT\_2020\_828 Photoluminescence and electron-vibrational interaction in 5d state of Eu2+ ion in Ca3Al2O6 down-conversion phosphor for eco-friendly and efficient WLEDs submitted to Optics and Laser Technology Journal, Elsevier Publisher on 27.05.2020.
- 11. Dr. Daruka Prasad B, Assistant Professor, Physics, Reviewed the manuscript no. SNAS-D-20-04086, "Ultrasonic synthesis, Characterization red-emitting ZrO2: Eu3+nanophosphor". Submitted to SN Applied Sciences, Springer Publisher, on 15.05.2020.

#### **Collaborative Research:**

- Dr. Bharathi M A, Professor and Head, AI&ML was involved in the collaborative research with ALEKA Technologies, NITK Suratkal.
- Dr. Santhi Natarajan, Associate Professor, AIML was involved in the collaborative research with ALEKA Technologies, NITK Suratkal.
- Dr. C. Kavitha, Asst. Prof, Physics Department was involved in the collaborative research with CeNS, Bangalore, RL Fine Chem Pvt.Ltd.

#### **Expert talk organized:**

1. Department of Electrical and Electronics 2. Prof. Robin Singla, Assistant Professor, ECE Engineering under ISA Student Section organised a technical talk on "Introduction to Switch Mode Power Supply" for 6th and 8th semester students on 9th May, 2020. The resource person Mr. Aravind Bhat, working as Electrical Engineer in General Electric, Bengaluru.



2. The Department of Mechanical Engineering and Alumni Association organised a webinar "Automotive Vehicle Development Process". The webinar was delivered by Mr. Birender Kumar, Team Leader, Design Department, Nissan Motors Co. Ltd, Global HQ, Japan on 7<sup>th</sup> May 2020.

#### **Research Proposals granted:**

- 1. Dr. Sunanda Dixit, Associate Professor, CSE was granted research proposal from "IEEE Bangalore Section -Humanitarian Technology Project Funding 2020" on 27th May 2020 and the title of the project is "Water Animosity Tainting emulsion remover".
- 2. Dr. Hema Malini B H, Associate Professor, CSE was granted a Funding of Rs. 5000/- for the research proposal from "IEEE Bangalore Section - Humanitarian Technology Project Funding 2020 )IEEE BS-SHTPF 2020(" on 27th May 2020 and the title of the project is "All weather wildfire detection and security drone". The student team is Asif Ali Ahmed R, Harshad Bhatt and Roobini G.

#### **Departmental Co-curricular Activities OBE** activity by faculty:

1. Prof. Suryakanth B, Assistant Professor, ECE Department, conducted an online quiz activity in the course ARM & Embedded system on

- 27/05/2020 for 6<sup>th</sup> semester A and B section students.
- Department, conducted an online guiz activity in the course Microcontroller lab on 08/05/2020 for 4<sup>th</sup> semester A section students.
- 3. Prof. Robin Singla, Assistant Professor, ECE Department, conducted online guizzes in the course Wireless LTE on 08/05/2020 and 23/05/2020 for 8<sup>th</sup> semester A section students.
- 4. Dept of ETE organized a Online student workshop on "A hands on Packet tracer for Networks" on 16/5/2020 for 6<sup>th</sup> sem ETE and Prof. Saritha I G, Prof. Sowmyashree M S and Prof. Sumathi M S, Asst professors, Dept of ETE were the resource persons.
- 5. Prof. S. Nithya Poornima, Assistant Professor, Department of Mechanical Engineering organised flip class for the VIII semester Mechanical Engineering Students for the subject "Operations Research" on 22<sup>nd</sup> May 2020. The topic for the session was on game theory Sequencing and PERT /CPM. This Session enabled the students to work on self-Learning, Communication skills and Peer to peer learning.
- 6. Prof. S. Nithya Poornima, Assistant Professor, Mechanical Department of Engineering for organised Quiz the VII semester Mechanical Engineering Students for the subject "Operations Research" on 23<sup>nd</sup> May 2020. The topic for the session was Transportation Problems and Assignment Problems. This Session enabled the students to work on self-Learning.
- 7. Dr. Nandini R. Assistant Professor. Mechanical Engineering department carried out an OBE activity in the course named product life cycle management (15ME835) on May 9<sup>th</sup> and May 15<sup>th</sup> 2020 for VIII SEM students. The students were given topics to speak related to PLM/PDM/ Forecasting Technology / New Product development and Virtual manufacturing of a product. They were also supposed to relate this concept to some industries who have implemented these strategies successfully in their company as a part of real time application.

This interaction come discussion session, helped the students to understand in reality how the concepts of PLM PDM/ Forecasting technology / New Product Development and virtual manufacturing will affect the life cycle of a product, how a new product launching could be successful with the help of virtual prototyping and manufacturing. It also helped the students to realize the pain and the cost associated by implementing PLM/PDM in an industry.

It also helped the students to understand how forecasting technology can enhance in optimizing the manufacturing phases to yield with qualitative product. This interaction session helped overall students to get a clear picture of product life cycle management and its applications in reality.

# <u>Publication of Research Papers by the Faculty Members</u>

#### **International Journal:**

- 1. Shobha R, Vinod B R, Anusha P Prabhu, Shubhashree G R, Yaksha V', "Response of Tall Structures Along Face Exposed to Blast Load Applied at Varying Distance", International Journal of Recent Technology and Engineering, ISSN: 2277-3878, Volume-9, Issue-1, 2020-05-05, http://ijrte.org/download/volume-9-issue-1/
- 2. Shanti Chandra, "A Comparative Analysis of Performance of Several Wavelet Based ECG Data Compression Methodologies", IRBM, Elsevier, SSN: 1959-0318, May 2020.
- 3. Elsevier BIOBASE, Hinari, LiSSa Littérature Scientifique en Santé, Embase, Pascal Francis, Scopus, Science Citation Index Expanded Doi: https://doi.org/10.1016/j.irbm.2020.05.004
- 4. Prashant N.A, Anirudha K.S, B.Manjunath, Bhargav Reddy.B, Balaji Subramanyam M.K, "Comparative study of buck-boost, zeta and sepic dc-dc converters for maximum power point tracking applications in pv systems", Journal of Emerging Technologies and Innovative Research (JETIR), ISSN:2349-5162, Vol.7, Issue 5, page no. pp453-457, May-2020.
- 5. Prof. Swetha M S published book chapter title "Intrusion Prediction and Detection with Deep Sequence Modeling" in Communications in Computer and Information Science book series (CCIS, volume 1208), Springer, 7th International Conference Symposium of Security in Computing and Communications, (SSCC 2019), Trivandrum, India, PP 11-25, DOI-10.1007/978-981-15-4825-3\_2.

- 6. Dr. Manjunath T N published a paper titled "A Survey on Privacy Preserving Clustering Analysis in Big Data Environment" in Test Engineering and Management Journal, ISSN: 0193-4120 Page No. 217 223, Volume 83 Page Number: 217 223 Publication Issue: May June 2020. (Scopus Indexed)
- 7. Dr. Manjunath T N, Published a paper titled "Parametric Analysis of Resource Management in HDFS" in Test Engineering and Management Journal, ISSN: 0193-4120,Volume 83 Page Number: 170 179 Publication Issue: May June 2020 (Scopus Indexed).
- 8. K.R.Jyothi, K.R.Bhagya, H.Nagabhushana, Vinayakprasann, N.Hegde, M.V.Murugendrappa, A.P. GnanaPrakash, **Daruka Prasad B**, M N Nagabhushan, "Synthesis and characterization of advanced functional dysprosium doped Sr2MgSi2O7 nanopowders for white LED application", Physica B: Condensed Matter, International Journal, ISSN: 0921-4526, 590, August 2020. https://doi.org/10.1016/j.physb.2020.412 195

#### **Alumni Activities**

- Number of registrations on portal as on 1<sup>st</sup> May 2020–3888
- 2. Events/Webinar
  - Webinar on Automotive Vehicle
     Development Process by Birender
     Kumar (ME 2011) on 07<sup>th</sup> May 2020.
  - b. Online Mock Interview by Mr Akash, Project Engineer, BLK Sons Ltd and Mr Md Fahim, QC Engineer, Redifice Developers(CIVIL 2017) on 11<sup>th</sup> and 12<sup>th</sup> May 2020.
  - c. Webinar on "Environmental Management Systems" by Ms
     Aishwarya, GIS Engineer, Space
     Geotech( CIVIL 2019) on 19<sup>th</sup> May 2020.
- 3. Webinars by Alumni Portal-Vaave
  - a. "Startup Opportunities In A Post COVID World" on 16<sup>th</sup> May 2020
  - b. The Future Of Supply Chain Ep 2 -Technology And Process Innovations on 16<sup>th</sup> May 2020.

- c. "Winning A Job In Tough Times" on 13<sup>th</sup>
  May 2020
- d. "STEM MBA In US" on 12th May 2020
- e. "Chat With Indian Alumni Studying At The University Of California Riverside" on 3<sup>rd</sup> May 2020.
- 4. As part of Vaave internship Students contacted peers to spread awareness on the mentor center and engage the mentors.

## Evenings with ENTREPRENEURSHIP DEVELOPMENT CELL:

Evenings with EDC is an initiative taken by the ENTREPRENEURSHIP DEVELOPMENT CELL of BMSIT&M to help engage students into productive hours during lockdown and also to work on the most important motive of the EDC which is to "NURTURE THE ENTREPRENEURIALISM IN AN INDIVIDUAL".

Episode one of this event was based on the struggle that an entrepreneur goes through while building his enterprise. The most important aspect of this webinar was to help people understand the building blocks of a startup. The speaker was Mr. Subhendu Panigrahi, Co-Founder and CEO, Skillenza.



#### **Department Project presentations:**

Sl no:	Departments	No: of Batches	Date	No: of Students
1	CIV	20	27.05.2020 to 29.05.2020	75
2	CSE	33	18.05.2020 & 19.05.2020	119
3	ECE	28	20.05.2020 to 22.05.2020	104
4	ETE	13	20.05.2020 & 21.05.2020	51
5	ISE	19	1.6.2020	70
6	MCA	12	1 <sup>st</sup> & 3 <sup>rd</sup> week of May-2020	61
7	MECH	21	25.05.2020	74

#### **Department Seminar presentations:**

Sl no:	Departments	No: of	Date	No: of Students
		Batches		
1	CIV	20	16.05.2020 to 20.05.2020	79
2	CSE	33	22.05.2020 to 23.05.2020	119
3	ECE	28	18.05.2020 to 20.05.2020	104
4	EEE	68	2.05.2020 to 4.05.2020	68
5	ETE	13	15.05.2020 & 16.05.2020	51
6	MECH	31	20.05.2020 to 23.05.2020	71

Classes handled by the department (from 01.05.2020 to 31.05.2020):

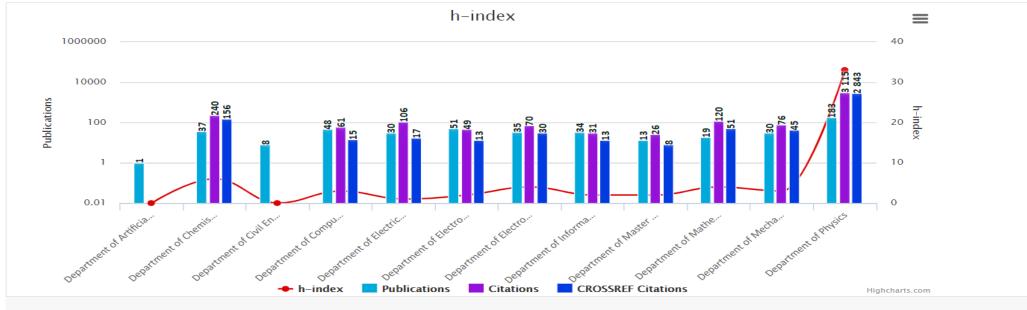
Sl no:	Departments	Semester	No: of Theory classes	No: of Practical classes
1	AIML	2	39	6
2	CIV	4,6,8	84	12
3	CSE	2, 4, 6, 8 & M.Tech	304	18
4	CHEM	2	156	24
5	ISE	2, 4, 6, 8	181	27
6	ECE	2, 4, 6, 8	361	54
7	EEE	2, 4, 6, 8	301	59
8	ETE	2, 4, 6, 8	126	11
9	PHY	2	140	35
10	MCA	2, 4	111	6
11	MECH	2, 4, 6, 8 & M.Tech	366	36

Summary of Workshop /Seminar/FDP, Online Quiz, Online Course and Webinar by faculty of all departments:

Department	Workshop /Seminar / FDP	Online Quiz	Online Course completed	Webinar
Artificial Intelligence and Machine Learning	2	-	9	1
Chemistry	7	-	1	-
Civil Engineering	22	6	13	17
Computer science and Engineering	15	7	8	22
<b>Electronics and Communication Engineering</b>	12	-	6	12
<b>Electrical and Electronics Engineering</b>	-	-	4	-
<b>Electronics and Telecommunication Engineering</b>	3	-	2	2
Information Science and Engineering	16	8	5	13
Mathematics	8	4	6	6
<b>Master of Computer Applications</b>	7	-	1	2
Mechanical Engineering	2	2	-	3
Physics	5	2	-	4
Total	99	29	55	82

#### **Faculty Publication Information from IRINS site:**

IRINS is web-based Research Information Management (RIM) service developed by the Information and Library Network (INFLIBNET) Centre in collaboration with the Central University of Punjab. The portal facilitates the academic, R&D organisations and faculty members, scientists to collect, curate and showcase the scholarly communication activities and provide an opportunity to create the scholarly network. BMSIT&M through IRINS brings the details of its faculty research and publications details for the month of May-2020.



#### **Revaluation centre:**

BMSIT&M was identified as a revaluation centre by VTU, Belagavi. A revaluation centre was started at BNS block of our Institute and the statistics pertaining to our institution is as given in the following table.

No. of Scripts Revalued	5930
Valuation Dates	23.05.2020 to 04.06.2020
No. of Subject Valued	91
No. of BMSIT&M faculty valued scripts	4077
No. of BMSIT&M faculty attended for valuation	73