Report on

AICTE Teaching and Learning (ATAL) Academy Sponsored

Six Day Faculty Development Program on

Emerging Trends & It's Applications in Civil Engineering

18th to 23rd December 2023

Organized by
Department of Civil Engineering

ATME College of Engineering, Mysore
13th Kilometre, Mysore-Kanakapura-Bangalore Road - 570028

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About ATME College of Engineering

ATME College of Engineering Mysuru, established in the year 2010 is approved by AICTE New Delhi and affiliated to Visvesvaraya Technological University Belagavi, Karnataka. Currently, 9 UG programs and one PG program (MCA) are offered to students.

Founders are managing various kind of enterprises like infra companies, manufacturing units, and IT service. Founders are aware of the need of the industry and trying to cater to such needs by developing industry-ready engineers through ATME College of Engineers. ATME has created a futuristic infrastructure with 3 lakh sq ft of built-up area, state of the art labs, a cluster of seminar halls & Auditorium with all modern gadgets, Library, Central computing facility, etc. All this has been done within a span of 8 years and can proudly be said that our infra is at par with any institution with a standing of 20-25 year.

ATMECE is re-accredited for 3 years by NBA for Civil Engineering, Electronics & Communication, Electrical & Electronics, and Mechanical Engineering Courses. Computer Science Course is accredited by NBA for 3 Years. ATMECE is an ISO 9001-2015 certified college and is awarded "The Best Emerging Private Engineering College in Karnataka" and "Most Promising Upcoming Private Engineering College in Karnataka" for two consecutive years. ATMECE has secured QS I-Gauge Gold Ranking. ATMECE has been listed as one of the "Swachh Institute of the Country in 2019-20".

ATMECE is proud of achieving accreditation by NAAC with A+ grade and is one among seven engineering colleges in Karnataka and one of the 47 Engineering colleges at the national level granted with A+ in the very First Cycle.

All the Departments in the Institute are recognized as research centers from VTU to pursue MS (Research) and Ph.D. The Institute has received more than 5 crores of external funding for various research & consultancy projects in the last 5 years. ATMECE has collaborated with more than twenty-five Industries and Institutes across the globe.

Vision

Development of academically excellent, culturally vibrant, socially responsible and globally competent human resources.

Mission

- To keep pace with advancements in knowledge and make the students competitive and capable at the global level
- To create an environment for the students to acquire the right physical, intellectual, emotional and moral foundations and shine as torchbearers of tomorrow's society
- To strive to attain ever-higher benchmarks of educational excellence

Department of Civil Engineering

The Department of Civil Engineering came into existence in the year 2011 offering UG program in Civil Engineering with an intake of 60. The Department of civil engineering is growing tremendously over the years. With this small span of time the department has nurtured young minds to produce bright able Civil Engineers to the society. The department has expertise in almost the entire spectrum of civil engineering namely in Highway technology, Planning, Design, Construction and Management. The department with its multifaceted faculty continues to maintain and cultivate its strong links with infrastructural industry, academics and research. Various lab facilities are provided to students here. The labs here provide expertise in Structural Engineering, Transportation Engineering, Geotechnical Engineering, Environmental Engineering, Hydraulics and Surveying. With this state of art infrastructure, the students involve them in research with the guidance of expertise faculties.

The UG program is accredited by NBA for a period of 3years in two consecutive cycles. The department has varied laboratories with excellent facilities in order to carry out the Research and Consultancy works. Department has received funding up to Rs. 10lakhs sponsored by Central & State Govt agencies. Department is actively involved in Consultancy works. Department has good numbers of faculty and student publications. Department has MoU's with many organizations to bridge the gap between academics & Industry.

Vision

To develop globally competent civil engineers who excel in academics, research and are ethically responsible for the development of the society.

Mission

- To provide quality education through faculty and state of art infrastructure.
- To identify the current problems in society pertaining to Civil Engineering disciplines and to address them effectively and efficiently.
- To inculcate the habit of research and entrepreneurship in our graduates to address current infrastructure needs of society

Program Specific Outcomes (PSOs)

PSO 1 – Provide necessary solutions to build infrastructure for all situations through competitive plans, maps and designs with the aid of a thorough Engineering Survey and Quantity Estimation.

PSO 2 – Assess the impact of anthropogenic activities leading to environmental imbalance on land, in water & in air and provide necessary viable solutions revamping water resources and transportation for a sustainable development

About ATAL

AICTE Training and Learning (ATAL) Academy is established with the vision "To empower faculty to achieve goals of Higher Education such as access, equity and quality". AICTE is committed for development of quality technical education in the country by initiating various schemes launched by Govt. of India, Ministry of Human Resource Development. Council understands that there is a need of the day to train the young generation in skill sector and having faculty & technicians to be trained in their respective disciplines. Training is required for increasing the knowledge and skills of faculties and students to make them more employable to acquire global competencies.

About the FDP

The technology is changing very rapidly and the new technologies are being introduced on day-to-day basis. The National Education Policy focuses on interdisciplinary research. There is a requirement for the staff members and researchers to enhance their knowledge and competency in the field of academia and research. In view of keeping the faculty members and researchers in-line with requirements of NEP and to address the interdisciplinary research avenues, the department of Civil Engineering has been organizing a 6-Days offline Faculty Development Program in the emerging trends that focuses on Applications of Artificial Intelligence, Machine Learning, Artificial Neural Networks, Soft Computing Techniques, Automation, Deep Learning in the field of Civil Engineering.

Objectives

- Understanding the concepts of artificial neural networks, Soft Computing Techniques, Automation and Deep Learning
- Practical implementation of all the techniques with real time applications
- Developing skills in predictive analytics using various tools.

Expected Outcomes

- Better understanding of artificial neural networks, Soft Computing Techniques, Automation and Deep Learning
- Improved ability to design, develop, and implement AI applications to provide solutions for Civil Engineering problems.
- Integration of modern technologies and techniques into the academics to improve the quality of education in Collaborative learning.

Committee Members

Chief Patron	Sri. L Arun Kumar, Hon. Chairman, ATMECE
Patrons	Sri. K. Shivashankar, Hon. Secretary, ATMECE
	Sri. R. Veeresh, Hon. Treasurer, ATMECE
Principal	Dr. A K Murthy, ATMECE
Advisory Committee	Dr. S R Bhagyashree, Dean-Research, Professor, Dept. of ECE, ATMECE
	Dr. Suneeth Kumar S M, Professor, Dept of CE, ATMECE
Convenor	Prof. Manu Vijay, Associate Professor & Head, Dept. of CE, ATMECE
Co-Ordinator	Dr. Seshadri Sekhar N, Professor, Dept. of CE, ATMECE
Co-Coordinators	Mr. Srivathsa H U, Assistant Professor, Dept. of CE, ATMECE
	Mr. Puneeth K, Assistant Professor, Dept. of CE, ATMECE
Organizing Committee	Mrs. Jyothi D N, Assistant Professor, Dept. of CE, ATMECE
	Mr. Rudresh A N, Assistant Professor, Dept. of CE, ATMECE
	Mrs. Shruthi H G, Assistant Professor, Dept. of CE, ATMECE
	Mrs. Bharathi B, Assistant Professor, Dept. of CE, ATMECE
	Mr. Shashank P, Assistant Professor, Dept. of CE, ATMECE
	Ms. Namitha A P, Assistant Professor, Dept. of CE, ATMECE
	Mrs. Akhila C G, Assistant Professor, Dept. of CE, ATMECE

Schedule of FDP

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
18/12/2023	19/12/2023	20/12/2023	21/12/2023	22/12/2023	23/12/2023
9.00 to 9.30am **Inauguration**					
9.30am to 12pm **Session 1**	9.30am to 12pm **Session 3**	9.30am to 12pm **Session 5**	9.30am to 12pm **Session 7**	9.30am to 12pm **Session 8**	9.30 am to 12pm **Session 10**
Research & Funding Avenues Dr. Anant Ram, Advisor, Higher Education Accreditation & Research Promotion, New Delhi.	**Student-Centric Pedagogical approaches for enhanced T-L outcomes** Dr. Prathima Khandelwal, Founder, Flyhigh, FLAHS, Ramaiah University of Applied Sciences, Bengaluru	**Automation in Civil Engineering** Mr. Mallesh N G, Structural Engineer, Atkins Bengaluru	**Concrete Strength Prediction using Machine Learning** Ms. Keerthana H Magadi, Asst. Professor, Dept. of ECE, Jain (Deemed-to-be University), Bengaluru	**ANN in strength Prediction of RCC Structural Component** Dr. Radhakrishna Bhat, Asst. Professor, Dept. of CSE, Manipal Institute of Technology	**Art of Writing a Research Paper** Dr. Bhagyashree S R, Dean-Research, Professor, Dept. of ECE, ATMECE, Mysuru
12 to 1pm **Article Discussion**	12 to 1pm **Article Discussion**	12 to 1pm	12 to 1pm	12 to 1pm **Article Discussion**	12 to 1pm **Lunch**
Prediction of wave transmission over submerged reef of tandem breakwater using PSO-SVM and PSO-ANN techniques Dr. Geetha Kuntoji, Asst. Professor, Dept. of CE, BMSCE, Bengaluru	**A Systematic Review of Advanced Sensor Technologies for Non-Destructive Testing and Structural Health Monitoring** Dr. Naveen Kumar D T, Assoc. Professor, Dept. of CE, SJBIT, Bengaluru	**Deliberation of VBA- Excel tool** Mr. Mallesh N G, Structural Engineer, Aktinks Bengaluru	**Hands-on-session On** Concrete Strength Prediction using Machine Learning	**A Prediction Model for Flexural Strength of Pre-stresses Concrete Beam using Artificial Neural Network** Dr. Radhakrishna Bhat, Asst. Professor, Dept. of CSE, Manipal Institute of Technology	1 to 4pm Project Formation & Group Discussion/ Interaction s
LUNCH BREAK (1 to 2pm)					
2 to 4.30pm **Session 2**	2 to 4.30pm **Session 4**	2 to 4.30pm **Session 6**	2 to 5.30pm	2 to 4.30pm **Session 9**	4 to 5.30pm
Soft Computing in Civil Engineering Dr. Geetha Kuntoji, Asst. Professor, Dept. of CE, BMSCE, Bengaluru	**Ensuring Infrastructure Resilience through Structural Health Monitoring** Dr. Naveen Kumar D T, Assoc. Professor, Dept. of CE, SJBIT, Bengaluru	**Steel Connection Design Using Idea Static** Mr. Mallesh N G, Structural Engineer, Atkins Bengaluru	**Industrial Visit to L&T, CTEA**	**Applications of ANN in Civil Engineering & Article Discussion** Dr. Keerthi Gowda B S, Asst. Professor, Dept. of CE, Centre for Postgraduate Studies VTU, Mysore	Reflection Journal Assessment, Feedback & valedictory
4.30 to 5.30pm **Hands-on-Session**	4.30 to 5.30pm **Hands-on-Session**	4.30 to 5.30pm **Hands-on-Session**		4.30 to 5.30pm **Hands-on-Session**	

Approved List of Participants

Sl. No	NAME	DESIGNATION	COLLEGE NAME
1	PUNEETH K	ASSISTANT PROFESSOR	ATME COLLEGE OF ENGINEERING
2	SRIVATHSA H U	ASSISTANT PROFESSOR	ATME COLLEGE OF ENGINEERING
3	MAHENDRA KUMAR H M	ASSISTANT PROFESSOR	JSS SCIENCE TECHNOLOGY AND UNIVERSITY
4	KRISHNA SWAROOP C D	ASSISTANT PROFESSOR	MALNAD COLLEGE OF ENGINEERING
5	SHARATH H P	ASSISTANT PROFESSOR	JSS SCIENCE TECHNOLOGY AND UNIVERSITY
6	PRASAD PUJAR	ASSISTANT PROFESSOR	JSS SCIENCE TECHNOLOGY AND UNIVERSITY
7	NAMITHA AP	ASSISTANT PROFESSOR	ATME COLLEGE OF ENGINEERING
8	JYOTHI D N	ASSISTANT PROFESSOR	ATME COLLEGE OF ENGINEERING
9	SHRUTHI H G	ASSISTANT PROFESSOR	ATME COLLEGE OF ENGINEERING
10	MUKESH	ASSISTANT PROFESSOR	M.KUMARASAMY COLLEGE OF ENGINEERING
11	SETHURAMAN S	ASSISTANT PROFESSOR	M.KUMARASAMY COLLEGE OF ENGINEERING
12	PUNITH B KOTAGI	ASSISTANT PROFESSOR	THE NATIONAL INSTITUE OF ENGINEERING
13	MADAN KUMAR L	ASSISTANT PROFESSOR	THE NATIONAL INSTITUTE OF ENGINEERING
14	NAVEEN G M	ASSISTANT PROFESSOR	GEC, KUSHALNAGAR
15	KAVYA K M	ASSISTANT PROFESSOR	JSS SCIENCE TECHNOLOGY AND UNIVERSITY
16	RUDRESH A N	ASSISTANT PROFESSOR	ATME COLLEGE OF ENGINEERING
17	MANU VIJAY	ASSOCIATE PROFESSOR	ATME COLLEGE OF ENGINEERING
18	BHARATHI B	ASSISTANT PROFESSOR	ATME COLLEGE OF ENGINEERING
19	P SHASHANK	ASSISTANT PROFESSOR	ATME COLLEGE OF ENGINEERING
20	PRASHANTH V P	ASSISTANT PROFESSOR	SJCE JSS SCIENCE AND TECHNOLOGY UNIVERSITY
21	CHETANA S	ASSISTANT PROFESSOR	ATME COLLEGE OF ENGINEERING
22	VISHWAS.G	ASSISTANT PROFESSOR	SJCE JSS SCIENCE AND TECHNOLOGY UNIVERSITY
23	MANOJ KUMAR H R	ASSISTANT PROFESSOR	JSS SCIENCE AND TECHNOLOGY UNIVERSITY
24	NAGELLA VENKATESWARLU	ASSISTANT PROFESSOR	NBKR INSTITUTE OF SCIENCE & TECHNOLOGY
25	RAHUL	ASSISTANT PROFESSOR	SJCE JSS SCIENCE AND TECHNOLOGY UNIVERSITY
26	RAJEETH T J	ASSISTANT PROFESSOR	VIDYAVARDHAKA COLLEGE OF ENGINEERING
27	PRAKASH T B	ASSISTANT PROFESSOR	BMS EVENING COLLEGE OF ENGINEERING
28	SUSHMITHA G S	ASSISTANT PROFESSOR	VIDYAVARDHAKA COLLEGE OF ENGINEERING, MYSURU
29	T CHANDRA SEKHAR	ASSISTANT PROFESSOR	NBKR INSTITUTE OF SCIENCE & TECHNOLOGY
30	AKHILA CG	ASSISTANT PROFESSOR	ATME COLLEGE OF ENGINEERING
31	SANDEEP KUMAR D S	ASSISTANT PROFESSOR	PES COLLEGE OF ENGINEERING
32	MANU S GOWDA	ASSISTANT PROFESSOR	MAHARAJA INSTITUTE OF TECHNOLOGY THANDAVAPURA MYSURU

33	UDAY SHANKAR S	ASSISTANT PROFESSOR	JSS SCIENCE AND TECHNOLOGY UNIVERSITY
34	SUNEETH KUMAR SARAGUR	PROFESSOR	ATME COLLEGE OF ENGINEERING
35	LOKESH BJ	ASSISTANT PROFESSOR	GOVERNMENT POLYTECHNIC, CHANNASANDRA
36	SATISH R	ASSOCIATE PROFESSOR	JSS SCIENCE AND TECHNOLOGY UNIVERSITY
37	SESHADRI SEKHAR N	PROFESSOR	ATME COLLEGE OF ENGINEERING
38	ARJUN V	ASSISTANT PROFESSOR	VIDYAVARDHAKA COLLEGE OF ENGINEERING
39	GANGADHARA S	ASSISTANT PROFESSOR	BANGALORE INSTITUTE OF TECHNOLOGY
40	GANAVI S	ASSISTANT PROFESSOR	MAHARAJA INSTITUTE OF TECHNOLOGY
41	HARSHITH M	ASSISTANT PROFESSOR	MAHARAJA INSTITUTE OF TECHNOLOGY THANDAVAPURA MYSURU
42	RAVIKIRAN S SAGAR	SENIOR ENGINNER	RM CONSULTANTS
43	JASWANTH M	ASSISTANT PROFESSOR	MYSORE COLLEGE OF ENGINEERING AND MANAGEMENT MYSORE
44	KARTHIK POOVAIAH D	ASSISTANT PROFESSOR	COORG INSTITUTE OF TECHNOLOGY, COORG

Inaugural Session

The Inaugural Session of the Faculty Development Program was held on 18th December 2023 at 9:00am at ATMECE Auditorium. Sri. Somashekar MG, Chief Managing Director, PG Setty was the Chief Guest of the Inaugural function. Mr. Manu Vijay, Associate Professor & Head, Department of Civil Engineering, ATMECE welcomed the gathering. Dr. A K Murthy, Principal, ATMECE Mysuru presided the event. Dr. Seshadri Sekhar N, Professor, Department of Civil Engineering proposed the vote of thanks. IQAC Director, Dean, Heads of various Departments, Staff members of ATMECE and participants from premier institutes witnessed the event.

ಆಂದೋಲನ

ಪುನಶ್ಚೇತನ ಕಾರ್ಯಾಗಾರಕ್ಕೆ ಚಾಲನೆ...ಮೈಸೂರು-ಬನ್ನೂರು ರಸ್ತೆಯಲ್ಲಿರುವ ಎಟಿಎಂ ಇಂಜಿನಿಯರಿಂಗ್ ಕಾಲೇಜಿನಲ್ಲಿ ಕೇಂದ್ರ ಸರ್ಕಾರದ ಅಟಲ್ ಅಕಾಡೆಮಿ ಹಾಗೂ ಎಐಸಿಟಿಇ ಸಹಯೋಗದಲ್ಲಿ ಸಿವಿಲ್ ಇಂಜಿನಿಯರಿಂಗ್ ಕ್ಷೇತ್ರದಲ್ಲಿ ತಂತ್ರಜ್ಞಾನದ ಬಳಕೆ ಮತ್ತು ನೂತನ ಆವಿಷ್ಕಾರಗಳ ಕುರಿತು ಅಧ್ಯಾಪಕರಿಗಾಗಿ ಆಯೋಜಿಸಿರುವ ಆರು ದಿನಗಳ ಪುನಶ್ಚೇತನ ಕಾರ್ಯಾಗಾರಕ್ಕೆ ಚಾಲನೆ ನೀಡಲಾಯಿತು. ಮೈಸೂರಿನ ಪಿ.ಜಿ.ಶೆಟ್ಟಿ ಕನ್‌ಸ್ಟ್ರಕ್ಷನ್ ಕಂಪೆನಿಯ ಮುಖ್ಯ ನಿರ್ದೇಶಕ ಎಂ.ಜಿ.ಸೋಮಶೇಖರ್, ಪ್ರಾಂಶುಪಾಲ ಡಾ.ಎ.ಕೆ.ಮೂರ್ತಿ, ಐಕ್ಯೂಎಸಿ ನಿರ್ದೇಶಕ ಡಾ.ಎಲ್.ಬಸವರಾಜ್, ಡೀನ್‌ಗಳಾದ ಡಾ.ಎಂ.ಎಸ್.ಗೋವಿಂದೇಗೌಡ, ಡಾ.ಎಸ್.ಆರ್.ಭಾಗ್ಯಶ್ರೀ, ಡಾ.ಕೆ.ಶ್ರೀನಿವಾಸ್, ಡಾ.ಸುನಿಲ್ ಕುಮಾರ್, ಡಾ.ಶೇಷಾದ್ರಿ ಶೇಖರ್, ಪ್ರೊ.ಮನು ವಿಜಯ್, ಕಾರ್ಯಾಗಾರದ ಆಯೋಜಕರಾದ ಪ್ರೊ.ಶ್ರೀವತ್ಸ, ಪ್ರೊ.ಪುನೀತ್ ಚಿತ್ರದಲ್ಲಿದ್ದಾರೆ.

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ನಿರ್ಮಾಣ ಕ್ಷೇತ್ರದಲ್ಲಿ ತಾಂತ್ರಿಕ ಅವಲಂಬನೆ ಹೆಚ್ಚಳ

ನಗರದ ಬನ್ನೂರು ರಸ್ತೆಯ ಎಟಿಎಂಇ ಇಂಜಿನಿಯರಿಂಗ್ ಕಾಲೇಜಿನಲ್ಲಿ ಗುರುವಾರ ಹಮ್ಮಿಕೊಂಡಿದ್ದ ಪುನಶ್ಚೇತನ ಕಾರ್ಯಾಗಾರದಲ್ಲಿ ಎಂ.ಜಿ.ಸೋಮಶೇಖರ್, ಡಾ.ಎ.ಕೆ. ಮೂರ್ತಿ, ಡಾ. ಎಲ್. ಬಸವರಾಜ್, ಡಾ. ಎಸ್.ಆರ್. ಭಾಗ್ಯಶ್ರೀ ಇತರರು ಇದ್ದರು.

■ ವಿಜಯವಾಣಿ ಸುದ್ದಿಜಾಲ ಮೈಸೂರು

ನಗರದ ಬನ್ನೂರು ರಸ್ತೆಯ ಎಟಿಎಂಇ ಇಂಜಿನಿಯರಿಂಗ್ ಕಾಲೇಜಿನಲ್ಲಿ ಕೇಂದ್ರ ಸರ್ಕಾರದ ಅಟಲ್ ಅಕಾಡೆಮಿ ಹಾಗೂ ಎಐಸಿಟಿಇ ಪ್ರಾಯೋಜಕತ್ವದಲ್ಲಿ ಸಿವಿಲ್ ಇಂಜಿನಿಯರಿಂಗ್ ಕ್ಷೇತ್ರದಲ್ಲಿ ತಂತ್ರಜ್ಞಾನದ ಬಳಕೆ ಮತ್ತು ನೂತನ ಆವಿಷ್ಕಾರಗಳ ಕುರಿತು ಅಧ್ಯಾಪಕರಿಗೆ ಗುರುವಾರ ಪುನಶ್ಚೇತನ ಕಾರ್ಯಾಗಾರ ಹಮ್ಮಿಕೊಳ್ಳಲಾಗಿತ್ತು.

» ಎಂ.ಜಿ. ಸೋಮಶೇಖರ್ ಅಭಿಮತ

» ಎಟಿಎಂಇ ಕಾಲೇಜಿನಲ್ಲಿ ಪುನಶ್ಚೇತನ ಕಾರ್ಯಾಗಾರ

ಕಾರ್ಯಾಗಾರ ಉದ್ಘಾಟಿಸಿದ ಪಿ.ಜಿ. ಶೆಟ್ಟಿ ಕನ್‌ಸ್ಟ್ರಕ್ಷನ್ ಕಂಪನಿ ಮುಖ್ಯ ನಿರ್ದೇಶಕ ಎಂ.ಜಿ. ಸೋಮಶೇಖರ್ ಮಾತನಾಡಿ, ದೇಶದಲ್ಲಿ ಇತ್ತೀಚೆಗೆ ಶರವೇಗದಲ್ಲಿ ತಾಂತ್ರಿಕತೆ ಬೆಳವಣಿಗೆ ಯಾಗುತ್ತಿದೆ. ಕೃಷಿ, ಕೈಗಾರಿಕೆ ಸೇರಿದಂತೆ ನಿರ್ಮಾಣ ಕ್ಷೇತ್ರದಲ್ಲೂ ತಂತ್ರಜ್ಞಾನದ ಬಳಕೆ ದಿನೇ ದಿನೆ ಹೆಚ್ಚುತ್ತಿದೆ ಎಂದರು. ದೇಶದ ಬೆಳವಣಿಗೆಯಲ್ಲಿ ನಿರ್ಮಾಣ ಕ್ಷೇತ್ರದ ಕೊಡುಗೆ ಅಪಾರವಾಗಿದೆ. ಮಾನವ ಶಕ್ತಿ ಅವಲಂಬಿತ ಉದ್ಯೋಗಗಳ ಮೇಲೆ ಇದು ವ್ಯತಿರಿಕ್ತ ಪರಿಣಾಮ ಬೀರಿದರೂ ತಾಂತ್ರಿಕತೆ ಸಹಾಯದಿಂದ ಕೆಲಸಗಳನ್ನು ತ್ವರಿತವಾಗಿ ಮಾಡಿ ಮುಗಿಸಬಹುದಾಗಿದೆ. ಇದರಿಂದ ಸಮಯದ ಉಳಿತಾಯ ಹಾಗೂ ಕ್ಲಿಷ್ಟಕರ ಕೆಲಸಗಳನ್ನು ನಿರಾಯಾಸವಾಗಿ ಮಾಡಬಹುದಾಗಿದೆ. ಹಾಗಾಗಿ ಮುಂದಿನ ದಿನ ಗಳಲ್ಲಿ ನಿರ್ಮಾಣ ಕ್ಷೇತ್ರದಲ್ಲಿ ತಾಂತ್ರಿಕತೆಯ ಅವಲಂಬನೆ ಹೆಚ್ಚಲಿದೆ ಎಂದು ಅಭಿಪ್ರಾಯ ಪಟ್ಟರು.

ಪ್ರಾಂಶುಪಾಲ ಡಾ.ಎ.ಕೆ.ಮೂರ್ತಿ, ಐಕ್ಯೂಎಸಿ ನಿರ್ದೇಶಕ ಡಾ.ಎಲ್. ಬಸವರಾಜ್, ಡೀನ್‌ಗಳಾದ ಡಾ.ಎಂ.ಎಸ್. ಗೋವಿಂದೇಗೌಡ, ಡಾ.ಎಸ್.ಆರ್. ಭಾಗ್ಯಶ್ರೀ, ಡಾ.ಕೆ.ನಿವಾಸ್, ಡಾ.ಸುನೀತ್ ಕುಮಾರ್, ಡಾ.ಶೇಷಾದ್ರಿ ಶೇಖರ್, ಪ್ರೊ.ಮನು ವಿಜಯ್, ಕಾರ್ಯಾಗಾರದ ಆಯೋಜಕರಾದ ಪ್ರೊ.ಶ್ರೀವತ್ಸ, ಪ್ರೊ. ಪುನೀತ್ ಇತರರು ಇದ್ದರು.

The above clippings related to FDP Inaugural function published in the **Andolana** page no 6 & in **Vijayavani** page no 3 of Mysuru district News Papers dated 22.12.2023.

Session – 1

Dr. Anant Ram
Advisor, Higher Education Accreditation & Research Promotion
New Delhi

Dr. Anant Ram completed his PhD in Computer Application. He has completed his MBA in Hospital Administration. Presently he is pursuing his Post Doctorial Fellowship in Computer Application He has 24+ years of experience in promotion of Research & Innovation, Accreditations and various Approvals & permissions from Statutory Bodies International Admissions. He is presently the Advisor for Research Promotion & Accreditation and being Associated with 50+ Universities and 100+ Colleges for promotion of Research and Innovations, Accreditations such as IAO, NAAC, NBA, SIRO, NIRF in Universities and Colleges. He has received Teacher's Excellence award for his outstanding contribution in the field of Education in the year 2022, National mathematics award for his outstanding contribution in the field of Education for promoting research & innovation in the year 2022, International leadership award at International leadership summit in the year 2022, Rashtrapita Rashtriya Samman award for his life time achievement in education sector in the year 2022 and Shiksha Ratna Award from Taxila Business School in the year 2023. Presently he is the Advisor for Higher Education Accreditation & Research Promotion, New Delhi

Research & Funding Avenues

Dr. Anant Ram addressed the participants and he explained the necessity of research for an academician. He said, Research allows the participants to pursue their interests, to learn something new, to hone problem-solving skills and to challenge oneself in new ways. Working on a faculty-initiated research project gives you the opportunity work closely with a mentor–a faculty member or another experienced researcher. He also opined that the important area of concern in research is writing appropriate proposals for funding. This is required for both the researchers to design and plan their research and for sponsor agencies to evaluate it in the pre-sanction phase and to monitor its progress in the implementation phase.

Session – 2

Dr. Geetha Kuntoji
Assistant Professor,
Dept. of CE,
BMSCE, Bengaluru

Dr. Geetha Kuntoji perused her bachelor's degree in Civil Engineering & Masters in Marine structures. She was awarded with PhD in the field of Coastal Engineering. She has published 7 – International & 1 – National articles in peer reviewed journals. She has also presented papers in 12 – International Conferences & 3 – National. She has published 3 book chapters. She has attended more than 10 workshops & symposiums. Received Best Paper Award for a paper titled "Prediction of damage level of inner conventional rubble mound breakwater of Tandem breakwater using Swarm Intelligence based Neural Network approach" presented in the 7th International Conference Soft Computing for Problem Solving in the year 2017 at IIT Bhubaneswar. She has guided 3 Major projects and 2 mini projects. She is the life member of ISH, IAHR & SCRS society. She has 4 years of teaching & 6 years of research experience. Presently she is working as Assistant Professor in Department of Civil Engineering at BMS College of Engineering, Bengaluru

Soft Computing in Civil Engineering

Dr. Geetha Kuntoji in her presentation gave a brief overview of soft computing techniques. She defines it as the use of approximate calculations to provide imprecise but usable solutions to complex computational problems. The approach enables solutions for problems that may be either unsolvable or just too time-consuming to solve with current hardware. Later she explained about the necessity of breakwater especially in coastal areas, breakwater functioning and its types, Application of Artificial Neural Network in saving the cost and time involved in modal studies. She also explained that the continuous action of the wave on the rubble mound breakwater will slowly affect its stability, which in turn degrades and transforms into an S-shaped profile with an extension at toe. The extended toe is then gets separated from the breakwater known as a submerged reef and is further placed on the sea side of the conventional breakwater. The resulting structure is a tandem breakwater.

For decades, the breakwaters have been designed by conducting experiments on its stability through physical model studies, which are laborious and expensive. Several researchers have carried out experimental, analytical and numerical studies on breakwaters in the past, but failed to give a simple mathematical model to predict the wave transmission over a submerged reef by considering all the boundary conditions. However, under similar site conditions, where a new tandem breakwater has to be designed, the results of these soft computing techniques can be very well used.

Session – 3

Dr. Pratima Khandelwal
Founder, FlyHigh Educational Excellence Services & FLAHS, Ramaiah University of Applied Sciences, Bengaluru

Dr Pratima Khandelwal is the Founder of FlyHigh, a MSME based educational support entity in Bengaluru, India. FlyHigh rests on capacity building initiatives for teachers and students' communities at higher educational institutions. She's also the Professor of Practice at Faculty of Life and Allied Health Sciences at Ramaiah University of Applied Sciences, Bengaluru. She carries collective over 23 years of teaching, mentoring, research, and leadership experience earned at Thapar Institute of Engineering. and Technology at Patiala and later in Bengaluru at NBA/NAAC accredited Science and Engineering institutions respectively under Bangalore University and Visvesvaraya Technological University (VTU), Belagavi, Karnataka. Along with these, she has entrepreneurial experience of about 3 years in upskilling the teachers and students' communities. She holds PhD (2002) in Food Technology and Process & Food Engineering from GBPUA&T, Pantnagar, and is the recipient of VC Gold Medal in the UG degree from same university. She has guided PhD, MSc and BE students in the domains of Food Biotechnology, and Environmental Sciences. Along with 45 research papers and 5 book chapters, she is the inventor of 2 Patents and co-discoverer of a few useful fungal strains.

Student-Centric Pedagogical approaches for enhanced T-L outcomes

Dr. Prathima Khandelwal started her presentation in pointing out the differences between Conventional and Contemporary approaches in teaching. She stressed that Pedagogical initiatives are need of the hour. In her presentation she mentioned 7 important attributes the Engineering student possess namely Acquire knowledge and understanding, Analyze and Innovate, apply information in real world problems, Develop Critical thinking & Problem-Solving Skills, Contribute in Teamwork, be ethical, bear soft skills and positive attitude, Develop EI and UHV. She also mentioned 3 important 21st Century skills that are Learning, Literacy and Life skills. She insisted the faculties to make of online platforms like slido, Padlet, Kahoot and many more for making the session interactive with students by conduction quizzes after the completion of modules to know the things better. She also opined that the students should be evaluated based on Bloom's Taxonomy level.

Session – 4

Dr Naveen kumar D T
Associate Professor,
Dept. of CE,
SJBIT, Bengaluru

Dr Naveen Kumar D T Completed B. E. in Civil Engineering from Bapuji Institute of Technology Davanagere in the year 2006. Qualified in GATE exam during third year with score of 87.92 percentile. Completed M. Tech. in CADS from Malnad college of Engineering and Technology Hassan in the year 2008. Completed PhD from National Institute of Technology Karnataka, Surathkal in the year 2014. Presently working as Associate Professor in the department of civil engineering, at SJBIT, Bengaluru. Has overall 15 years of experience in industry, teaching and research. Life member of ICI, ACCE, IAENG, AICTSD and IFERP. Some of achievements includes Publications more than 30 research papers at various reputed international Journals and conferences, 506 citations in google scholar, Reviewer of International Journals such as Elsevier, Taylor and Francis, Springer etc., organized various international conferences, workshops and FDP's, Chaired sessions at various national and international conferences, Successfully guided more than 21 PG projects, Presented around 6 technical talks at various technical institutes, Resource person for technical talks at RRIT, Bangalore and SIT, Tumkur and involved in structural health assessment projects since from 2008. His area of expertise includes Functionally graded materials, Laminated composites, Finite Element Analysis, Structural Dynamics, Structural Health Monitoring, Composite Mechanics.

Ensuring Infrastructure Resilience through Structural Health Monitoring

Dr. Naveen Kumar D T begins with the introduction to Structural health monitoring. Structural health monitoring is a Scientific process of nondestructively identifying characteristics related to the fitness of an engineered component (or system) as it operates which includes the operational and environmental loads that act on the component (or system), the mechanical damage that is caused by that loading, the growth of damage as the component (or system) operates, and the future performance of the component (or system) as damage accumulates. During his presentation he explained the causes of structural damage of building and the necessity of maintenance of structures. He explained the steps involved in the Structural health monitoring includes the determination of damage existence, damage geometric location, quantification of damage severity and prediction of remaining life of the structure. He also explained the necessity of Structural health monitoring in Indian scenario.

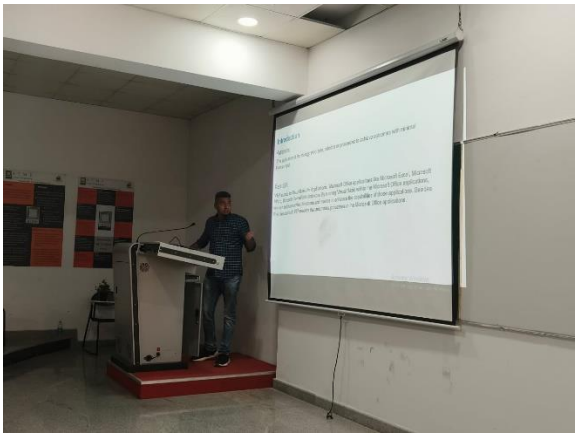
Session – 5 & 6

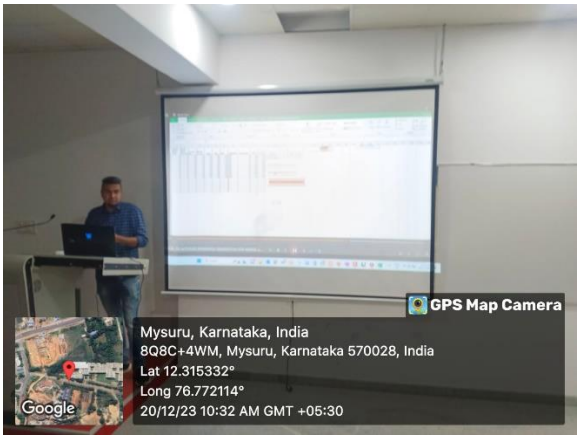
Mr. Mallesh N G
Structural Engineer
Aktinks, Bengaluru

Mr. Mallesh N G holds a Bachelor's degree in Civil Engineering from PESCE, Mandya, and Master's in Structural Engineering from MIT, Manipal. With over a decade of experience as a Structural Engineer, he has been marked by a focus on steel and RCC structures within the domains of steel plants and power plants. Currently, he is dedicated to nuclear plant structures design and am associated with Atkins realis. His professional journey has included enriching tenures at esteemed organizations such as Larson & Toubro, Tata Consulting Engineers, HIQ, and Infosys. Outside his engineering pursuits, he is very passionate about Excel VBA programming and automation. Presently sir is working as structural Engineer at Atkins, Bengaluru

Automation in Civil Engineering

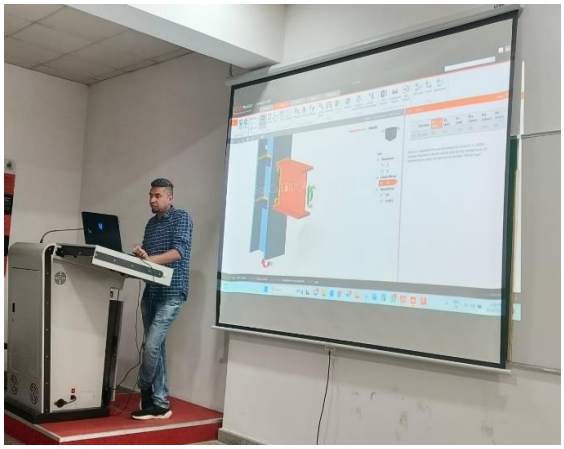
Mr. Mallesh during his presentation he defined Visual Basic for Applications, is a programming language that empowers users to automate tasks and create personalized solutions within Microsoft Excel. It enables users to create macros, which are instructions that automatically perform repetitive tasks. He also defined automation is an application of technology, programs, robotics or processes to achieve outcomes with minimal human input. In his presentation he mentioned few applications of automation in Civil Engineering which includes Robotic Construction Prefabrication and Modular Construction: Drones and UAVs, Building Information Modelling (BIM), Construction Equipment Automation, 3D Printing and Automation in Structural Engineering (Design Phase). He deliberated the procedure of linking of AutoCAD, Staad Pro and Excel. He also discussed few programs for creating beam, column and frame structures.





Steel Connection Design Using Idea Static

Mr. Mallesh in his presentation discussed the necessity of connection in building a structure. Connections exists when there is a change in the component (Beam-Colum), change in the direction (Main Beam with Secondary Beam) and change in the cross section occurs. To facilitate the connection angle sections along with bolts or welds will be provided. He explained briefly about different connection design software's such as Ram connection, Idea Statica, Risa Connection and Descon brace. In case of connection the objective of any structural design is to adopt a concept that in case of connection, member should fail first rather the connection. If member fails first, it can be easily be replaced and performance of the structure will not get effected but when the connection itself fail first, then there may be collapse of the structure takes place. He also explained the necessity of providing brackets and bracings in structures, curtailment of members etc.



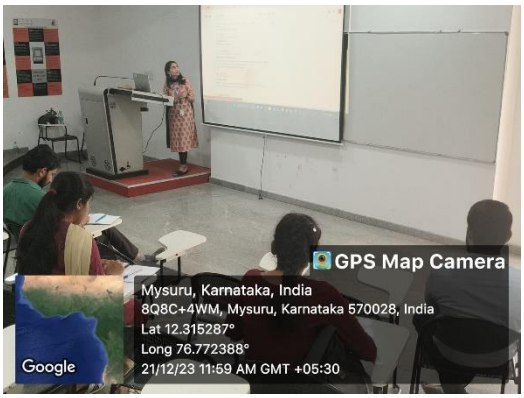
Session – 7

Ms. Keerthana H Magadi
Assistant Professor,
Dept. of ECE
Jain (Deemed-to-be University), Bengaluru

Ms. Keerthana H Magadi completed B.E in ECE with distinction from Global Academy of Technology, VTU and Masters in Artificial Intelligence & awarded Gold Medalist from Faculty of Engineering and Technology, JAIN (Deemed-to-be University). Currently pursuing a Ph.D. at the Faculty of Engineering and Technology, JAIN (Deemed-to-be University), in the integration of ECE and AI for healthcare applications. Her area of Expertise includes Artificial Intelligence, Signal Processing and Image Processing (contributing majorly to the healthcare industry). She has 15 certifications, 3 internships, 4 paper publications, and 2 patents. She is an active contributor to academia, having organized 8 national conferences and 8 training/workshops/SDPs. Additionally, has attended 4 FDPs and many various training programs. She Served as a resource person for 1 FDP, several SDPs and certification programs in the field of Artificial Intelligence. She completed roughly 15 noteworthy projects, with a few presented at state -level competitions.

Concrete Strength Prediction using Machine Learning

Ms. Keerthana started her presentation with the introduction to Artificial Intelligence. She quoted the words of Jhon McCarthy who coined the term Artificial Intelligence. Artificial Intelligence is composed of two words Artificial and Intelligence, where Artificial defines "man-made," and intelligence defines "thinking power", hence AI means "a man-made thinking power. “Artificial Intelligence exists when a machine can have human-based skills such as learning, reasoning, and solving problems. Later she explained about Machine Learning, a branch of artificial intelligence (AI) and computer science which focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving its accuracy. Machine learning has been widely used in several civil engineering applications, and has become an efficient tool to solve complex engineering problems. Machine learning concepts can be effectively used in many ways includes Prediction of the response of structural elements and systems; Structural reliability and structural health monitoring and damage detection; Prediction of the mechanical properties of civil engineering construction materials; Decision support for intelligent transportation systems; Applications of modelling to traffic analysis, control, and optimization smart city logistics; Traffic control and monitoring and Public transportation management.



Session – 8

Dr. Radhakrishna Bhat
Assistant Professor,
Dept. of CSE,
MIT, Manipal

Dr. Radhakrishna Bhat received his Bachelor of Engineering from Govt. S.K.S.J.T.I, Bengaluru and Integrated Ph.D. (M.Tech.+Ph.D.) degree from Visveswaraya Technological University (V.T.U), Belagavi. He has 10 years of industry plus teaching experience at the undergraduate (UG) and postgraduate (PG) levels. He is currently guiding two Ph.D. candidates at Manipal Academy of Higher Education, Manipal, India and supervised a number of projects at different levels at the University. He is an active researcher who has published more than 15 scientific research articles in reputed journals and conferences, 2 book chapters. He has also presented his works in PhD forums & Symposiums He has received grant for "Experimental Evaluation of Secure Fault-Tolerant Sensor Network Communication Performance", KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY (KSCST), Student Project Program (SPP), Govt. of Karnataka, and it is also patented. Being a Convenor organized International Conference. He is Editorial Board Member for many Peer Reviewed journals, TECHNICAL PROGRAM COMMITTEE MEMBER, Journal reviewer. His research interests include information security, high performance computing, Blockchain technology and machine learning. He is an active member of IEEE ACCS, CRSI. He is currently working as an Assistant Professor in the department of Computer Science and Engineering, Manipal Institute of Technology, Manipal Academy of Higher Education (MAHE), Manipal, India.

ANN in strength Prediction of RCC Structural Component

Dr. Radhakrishna Bhat during his presentation, he explained the difference between Artificial Intelligence, Machine Learning and Deep Learning. He also explained the basic concepts of statistics, components of Artificial Neural Networks and types of neural networks. Machine learning includes Methods based on the amount of human supervision in the learning process, Methods based on the ability to learn from incremental data samples and Methods based on their approach to generalization from data samples. He also explained few models of neurons. The database of real concrete mix proportioning listed in earlier research by another author is used for training and testing the ANN. The proper number of neurons in the hidden layer is determined by checking the features of over-fitting while the synaptic weights and the thresholds are finalized by checking the features of over-training. After that, the experimental data from other papers to verify and validate our ANN model. The final result of the synaptic weights and the thresholds in the ANN are all listed. Therefore, with them, and using the formulae expressed in this article, anyone can predict the compressive strength of concrete according to the mix proportioning on his/her own.

Session – 9

Dr. Keerthi Gowda B S
Assistant Professor, Dept. of CE
Centre for Postgraduate Studies VTU

Dr. Keerthi Gowda B S completed his Bachelor's degree from AIT Chikamagalur VTU Belgaum and Masters from MCE Hassan. He was awarded with PhD from PESCE Mandya under VTU. He is having 14 years of Teaching Experience. Presently he is guiding 2 PhD Candidates. He has Published 26 articles in reputed Peer Reviewed International & National Journals, 44 articles in Internal & National Conferences. He is having 435 Google Scholar out of which 12 h-index and 203 Scopus citations out of which 9 are h-indexed. He has more than 20+ MOOC Courses in different online platforms.
He has received Financial Assistance under V T U Research Grants Scheme and Seed Money to Young Scientist for Research (SMYSR), VGST, GoK. He has participated in more than 70+ workshops/ seminars/ symposiums. He has also attended two Industrial Training programs. He is reviewer for ELSEVIER and Taylor & Fransis Journals. His work on "A Natural Fiber Reinforced Polymer Composite as Alternative Building Material and Preparation Method Thereof" was patented. He is presently working as Assistant Professor, M.Tech Program in Structural Engineering, Department of Civil Engineering Centre for Postgraduate Studies VTU.

Applications of ANN in Civil Engineering

Dr. Keerthi Gowda B S during his presentation, he explained the Architecture, workflow and classification of Artificial Neural Network. He also briefed about the advantages & disadvantages of ANN. He quoted few applications of ANN in the field of concrete structures which includes Application of ANN in the assessment of construction costs, Slump detection of concrete, Structural Health Monitoring, waste management systems and Damage Detection in Structures. It is also used for the future prediction of climatic conditions in study area. In the current study, ANN is implemented through neural network toolbox of MATLAB.

Session – 10

Dr. Bhagyashree S R
Professor & Dean (Research)
Dept. of ECE, ATMECE

Dr. Bhagysshree S R perused her Diploma degree in the field of Telecommunication Engineering Later she completed her Bachelor's degree in Electronics & Communication Engineering, Masters in VLSI & Embedded systems Design and Awarded with PhD in the field of Electronics. She has worked in various positions during her professional career and she is having 23 years of teaching and 10years of industry experience. She has published 6 book chapters, 4 – H indexed journals, 9 articles in IEEE Proceedings, 10 articles in International Peer reviewed Journals and presented around 22 articles in international conferences. She has also received grants from MODROB- ASP, AICTE to conduct ATAL FDP, CSRI – DST. She has 4 patents. She was the Program Committee member for 15 International conferences, Editorial Board Member for 17 International Peer reviewed Journals. She was the session chair for 6 International conference proceedings and jury member for more than 5 project exhibitions and she also a reviewer for more than 25 international conference proceedings. She has also delivered more than 10 talks in different educational programs. She is also a BOE member for many premier institutes and colleges. She has completed more than 5 MOOC courses in SWAYAM. She has attended more than 10 FDP's and webinars and she also the convener for more than 40+ webinars, student induction programs and awareness programs. She is the chairperson for many committees and advisory committee member for many international conferences. She is presently Vice-Chairperson IETE Mysore Chapter, Fellow member of IEI, Senior Member of IEEE and Life member of ISTE. She is currently guiding 2 PhD scholars. Her research interest includes Machine learning, Power electronics, Embedded system, Neuro psychology. She is currently working as Dean-Research and Professor Department of Electronics & Communication Engineering at ATME College of Engineering, Mysuru

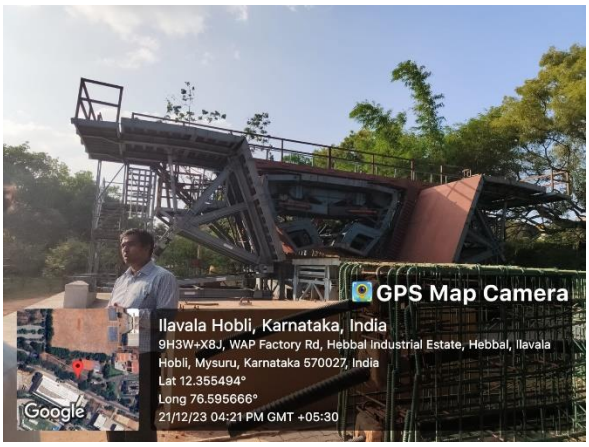
Art of Writing a Research Paper

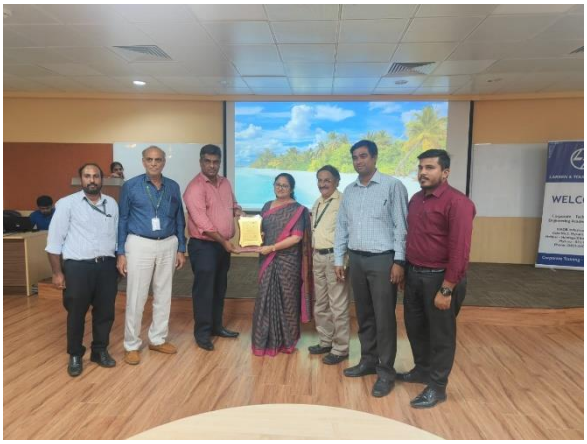
Dr. Bhagyashree S R in her presentation explain the importance of research for a faculty. She said that, as research becomes embedded in your practice you can gain a range of benefits. Research can: help you find solutions to particular problems arising in your classroom or school. underpin professional learning of knowledge, skills and understanding. The most important parts to focus on are the abstract, the introduction, and the conclusion. The rest of the paper is then more or less given by your material and therefore it is not covered here. The abstract is often written after everything else has been completed. She also discussed about the general structure for writing an academic journal article which includes Title, Keywords, Abstract, Introduction, Main body, Conclusion, References and citations.

Industrial Visit to L&T CTEA, Mysuru

Corporate Technology & Engineering Academy (CTEA) at Mysore was established with the objective of developing expertise in Technical, Functional, and Business Domains. The Academy at Mysore is housed in 25 acres in L&T Campus, the city known for its academic and research institutions, heritage buildings and palaces. The Academy is at serene and peaceful locations, making them idyllic as well as ideal places to learn and grow. The Academy have state-of-the-art Infrastructure and a learner friendly environment, with robust processes to design and deliver various high quality training programs. In addition to excellent classroom facilities, the Academy lay emphasis on providing Hands-on training to the participants and have the following labs: Advance Survey, Material Testing – Concrete, Soil & Bitumen, Prestress, Formwork & Scaffolding, Safety Gallery & VR based safety training, Electrical lab, Electronics, IOT & Embedded lab, Welding & Fabrication Lab.

During the time of Visit, Mrs. Sobha Arun, Head L&T CTEA gave us a presentation regarding the working function of L&T CTEA. Later Mr. Dilip Srinivas, Manager L&T CTEA explained about Formwork systems and Pre-stressing systems at the site. Faculties were then taken to lab as a part of visit.

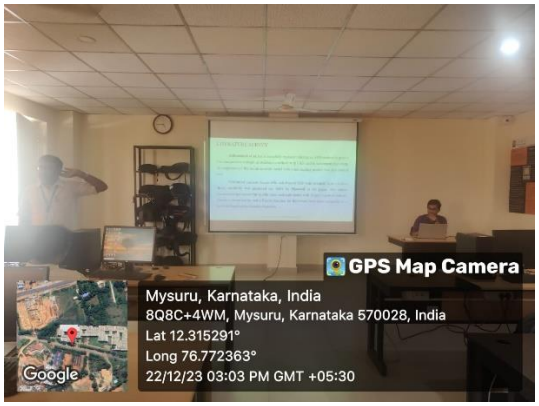




Article Discussion

Resource Persons of the Faculty Development program presented their articles and interacted with the participants. Articles presented during the event is mentioned below.

Article Discussion 1:	**Prediction of wave transmission over submerged reef of tandem breakwater using PSO-SVM and PSO-ANN techniques** - Dr. Geetha Kuntoji, Asst. Professor, Dept. of CE, BMSCE, Bengaluru
Article Discussion 2:	**A Systematic Review of Advanced Sensor Technologies for Non-Destructive Testing and Structural Health Monitoring** - Dr. Naveen Kumar D T, Assoc. Professor, Dept. of CE, SJBIT, Bengaluru
Article Discussion 3:	**A Prediction Model for Flexural Strength of Corroded Prestressed Concrete Beam using Artificial Neural Network** - Dr. Radhakrishna Bhat, Asst. Professor, Dept. of CSE, Manipal Institute of Technology
Article Discussion 4:	**Forecasting of SFRSCC's Fresh Property by ANN** - Dr. Keerthi Gowda B S, Asst. Professor, Dept. of CE, Centre for Postgraduate Studies VTU, Mysore



Hands-on-Sessions

Hands-on-session for the participants were given on Athematic, Algebraic & Trigonometric based calculation, Acoustic Emission, vibration-based damage detection in frame structure, Electromagnetic Impedance and Model mass for damage detection using MATLAB tool; Creating a Macro, Running a Macro and Assigning to Buttons or Shapes, working with One-dimensional & two-dimensional arrays, Integration of Excel with AutoCAD using Microsoft Excel Application; Structural steel connection using Idea Statica; Writing and Running a program for input of data set, testing the data set and analyzing of data set using MATLAB.

Reflective Journal

Articles presented by the Resource Persons were given to participants along with the Faculty Development Program Handout in order to mention the key takeaways from the articles presented and to mention few learning outcomes, key lessons (Concepts/Ideas) that they will Implement and to Share an Implementation Plan for your 3 – Key lessons (Concepts).

Assessment

Feedback Session

Valedictory

Mr. Manu Vijay, Associate Professor & Head Department of Civil Engineering thanked all the participants for being the part of Six Day Faculty development program and insisted all the participants to provide the same support in the upcoming events at ATMECE. Snacks was given to participants and the event was concluded at the end.

It was a great Initiative by ATAL Academy. We are thankful to AICTE for giving us this opportunity to conduct Six Day FDP for faculty members of technical institute of India with free of cost. We got good response for registration as well as lots of compliment for arranging the industrial visit, content presentation by Resource Persons and hands on sessions.