

||Jai Sri Gurudev|| Adichunchanagiri University BGS INSTITUTE OF TECHNOLOGY, B.G. Nagara-571448. DEPARTMENT OF CIVIL ENGINEERING "PRAGYAN"- News Letter 2023-2024 (ODD SEM)





Editor in chief: **Dr. T Mahadevaiah** Head, Department of Civil Engg.

### **Sub Editor**

1. Mrs. Manjula K,

Asst. Prof. Dept. of Civil Engineering

#### ||Jai Sri Gurudev||

# **Blessings**

The human life is granted because of divine grace. The aim of the human life is to attain liberation after accomplishing the voyage on this earth successfully. Our ancestors have marked three-fold path to achieve that. The first one is Karmamarga, where we do not hanker after fruits of our labor; the second one is the path of devotion, Bhaktimarga; and the



third one is the path of knowledge, Jnanamarga. All the three paths are complementary to each other. Normally, those who travel in the barge of action are numerous. They don't listen if you say there is absolutely no space as it is filled with people already. That is why the boat of action is brimming with voyagers. The second boat, representing the devotion, will not be as full as the other one. May be it will be half full. Moreover, there won't be any competition among people to get into this boat. The third boat represents the path of knowledge; in this boat the number of people will be very less. You can actually count on your finger-tips. In order to orient the boat of life towards liberation, man should accomplish the tasks with singular detachment. In addition to selfless work, he must also worship the Lord that enables him to acquire knowledge. Knowledge leads towards liberation. To acquire such a knowledge one must be supplicant at the feet of a Guru. If pupil accomplishes awareness through the Grace of his Guru, he can attain liberation as he would acquire self-knowledge as well.

## Vision, Mission, PEOs and PSOs of the Department

#### Vision

Producing technically competent and Environmental friendly Civil Engineering Professionals to cope with the societal challenges.

## Mission

- Imparting quality education and professional ethics by proficient faculty.
- Providing infrastructure to meet the requirements of curriculum, research and consultancy.
- Motivating towards higher education and entrepreneurship.
- > Promoting interaction with design and construction industries.

## **Program Education Objectives**

**PEO 1:** Graduates will be pursuing successful career & higher education.

**PEO 2:** Graduates will be able to design safe, economical & sustainable Civil Engineering structures conforming to standards.

**PEO 3:** Graduates will display professional ethics to work in a team & lead the team by effectively communicating the ideas.

**PEO 4:** Graduates will practice lifelong learning.

### **Programme Specific Outcomes**

**PSO 1:** Graduates will be able to analyse, design and execute the Civil Engineering structures effectively for the sustainable development

**PSO 2:** Graduates will acquire critical thinking abilities and technical skills for the usage of modern tools in development of Civil Engineering structures.

**PSO 3:** Graduates will be able to get opportunities for their professional growth, demonstrate communication and aptitude skills to face the challenges and needs of our society.



On 09<sup>th</sup> September 2023 "Awareness Training Program on ISO 21001:2018" was organized by BGSIT, ACU at BGS Seminar Hall to give knowledge about ISO 21001:2018.

Dr. T Mahadevaiah Professor & Head, department of civil engineering addressed the gathering and introduced the resource person, Mr. Tariq Ajmal, Senior Process Improvement Specialist, M/s Factocert, Bengaluru. He delivered talk about ISO 21001:2018 is an international standard developed by the International Organization for Standardization (ISO) which provides management tools for organizations that offer educational services. It intends to help educational providers meet student requirements and needs. Civil Engg., department staffs are actively participated in the program.



On 15<sup>th</sup> September 2023 "Engineers day" Celebration was organized by BGSIT, ACU at BGS Seminar Hall to commemorate the birth anniversary of Sir M Vishveswarayya and to celebrate the Engineers day. Dr T Mahadevaiah Professor & Head, department of Civil Engineering delivered presidential remarks and highlighted "The importance of Technical Education" by citing few practical examples. Celebration was very educative. All Civil Engg., department faculty members and students actively participated and made the program successful.



Department of Civil Engg, BGS Institute of Technology, ACU, has organized a visit to EXCON-2023, at Bangalore International Exhibition Center (BIEC), Bengaluru Karnataka, India, for 5th semester Civil Engineering Students on 15/12/2023. 55 students from V semester and two Faculty members, Mrs. Kavya B M and Mr. Akshay Kumar H S accompanied the visit. Students should gain awareness about Construction equipment and practices in Industry and they gain inspiration for academic projects, research topics or innovative ideas based on the current challenges and advancements showcased at the exhibition.



II year Civil Engg., students Ullas M R and Likith S were participated in the GirlGeekHack'23 on the account of Computer Science Week by IEEE Computer Society Bangalore Chapter, hosted by NITK Surathkal, India from 29<sup>th</sup> November to 1<sup>st</sup> December, 2023.



The Civil Engineering department has organized event-Fresher's Day on 11<sup>th</sup> Jan 2024. The event was Presided by Principal Dr. Shobha B N. Dr. T Mahadevaiah, HOD, Dept of Civil Engineering, all teaching and non-teaching staffs were present. Principal gave a presidential speech and spoke about the importance of Technical Education and how to improve carrier. This is the event where pre-final year students will welcome the second-year students to the department. Various cultural activities and games were conducted. Prizes were distributed to the toppers and winners of the various games.



II year Civil Engg., students Vikas M R, Vikas D K, Ullas M R and Likith S have participated in HACKMANIA 4.0 competition at PESCE Mandya, on 5<sup>th</sup> and 6<sup>th</sup> January 2024.

#### Meetings with Atkins Realis Academia: Building Bridges

On 11<sup>th</sup> Jan 2024 "AtkinsRealis" Academia, visited BGSIT, ACU, Civil Engineering department. Dr T Mahadevaiah welcomed the guests Prakash Thimmappa, Head of BIM Discipline and Ravikumar KN Assistant Technical Manager Atkins Réalis, GTC Bangalore, India to the department. Explained about the Atkins Réalis Academia Building & Bridges program. The students face-to-face and interact with them discretely. As part of their visit, they presented about the program, explained about training, and spoke to the students we screened initially. As an outcome, they have selected the below 20 students form VII semester for the training and look to kick off this program soon.



#### **Technical** Article

#### Bridging Horizons: Harnessing UAVs for Bridge Inspection and Construction

As humanity pushes the boundaries of bridge engineering, innovations like Unmanned Aerial Vehicles (UAVs) or drones are revolutionizing the inspection and construction processes. In the realm of infrastructure development UAVs offer unprecedented capabilities, enhancing efficiency, safety and precision. Traditionally, bridge inspection and maintenance have been labor-intensive and often hazardous tasks. Engineers and workers navigate treacherous heights and challenging terrains to assess structural integrity and identify potential defects. However, with the advent of UAV technology, these tasks are being transformed. In addition to inspection UAVs are also playing a pivotal role in bridge construction projects. From surveying terrain and planning routes to transporting materials and monitoring progress, drones streamline various phases of the construction process. Their agility and versatility allow them to navigate challenging environments with ease, reducing construction time and costs. Furthermore, UAVs enhance safety on construction sites by minimizing human exposure to hazardous conditions. They can perform tasks such as site surveillance, inventory management and environmental monitoring autonomously, freeing up human resources for more specialized roles.

In hilly regions, where conventional access methods may be limited, drones offer a lifeline for bridge construction projects. They can deliver equipment and supplies to remote locations, overcoming geographical barriers and logistical challenges. By leveraging UAV technology, engineers can extend their reach to even the most rugged and inaccessible terrain, facilitating the development of vital infrastructure in remote areas. However, the integration of UAVs into bridge inspection and construction workflows is not without challenges. Regulatory constraints, airspace management, and data privacy concerns must be carefully addressed to ensure safe and responsible UAV operations. Additionally, ongoing advancements in UAV technology require continuous training and adaptation to maximize their potential in bridge engineering applications.

In conclusion UAVs represent a transformative force in the field of bridge inspection and construction. By harnessing the power of aerial intelligence, engineers can enhance the safety, efficiency and sustainability of infrastructure projects worldwide. As UAV technology continues to evolve the possibilities for innovation in bridge engineering are limitless, ushering in a new era of connectivity and resilience in our built environment.

By,

Vidyashree C R V Sem Civil Engg. Mrs Manjula K, Assistant Prof, Dept. of Civil Engg, Attended an online FDP organized by Dr D Y Patil Institute of Technology, in Association with ASCE.





AICTE Activity Program: **AMRUT – AICTE Millet Recipe** Unleashing Talent participated by 16 students and 3 faculties with non-teaching faculties on 25<sup>th</sup> January 2024.

Mr Amith B J, Assistant Prof, Dept. of Civil Engg, Attended an online FDP on Latest Trend and Techniques in Software Engineering, An Industry Perspective organised by Dept. of CS, CRIST, Bangalore from 20<sup>th</sup> to 27<sup>th</sup> Jan 2024.



Mrs. Sowjanya G V bearing USN: 4BW19PCV01 part time research scholar of VTU presented her PhD final defence at BGS Institute of Technology. She successfully defended her thesis "**Experimental Investigation on Properties of Self Curing Concrete with Artificial Fine and Coarse Aggregates**" Under the guidance of Dr T Mahadevaiah Professor and Head, Department of Civil Engg, BGSIT and External examiner Dr. Amit Mahindrakar Professor, School of Engineering, Vellore institute of Technology, Chennai, Tamil Nadu Panel Members, Faculties of Civil Engineering and research scholars were present and witnessed the defense. In her research, Mrs Sowjanya G V explained the concept of self-curing concrete experiments done on strength and durable aspects. She validated results with ANN.





ACU-BGSIT conducted an Orientation program for M.Tech Students on 2<sup>nd</sup> March 2024 at BGSIT Seminar hall. Mrs. Kasturi R co-founder and Executive Director, ALP Consultancy was the chief guest and addressed the students on opportunities and recent developments in the industry. Dr. B N Shobha, Principal, BGSIT, Dr. M B Anandraju, Director, Student Affairs and Placement and Training, Prof. Rohith N R, Principal, BGSFGC, all HODs from various departments, PG Co-ordinators and students were presented.



Shruthi R, Associate Dr. Professor, Department of Civil Engineering was invited by the Rural Development and Panchayat Raj, Government of Karnataka, to serve as a guest speaker during the event "ಬೂದು ನೀರು ನಿರ್ವಾಹಣ ಘಟಕದ ತರಬೇತಿ/ Training on Greywater management for all ADPC,TC,TAE" through video conference on 6<sup>th</sup> March 2024. Her role was to provide technical assistance in Greywater management for the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Dr. Shruthi actively presented the technical aspects for the successful implementation of Greywater management in rural areas.



Shruthi Dr. R, Associate Professor, Department of Civil Engineering received the best paper award for her research article "ZLD proposal for smart infrastructure - Con Flow, constructed wetland derived а from horizontal and vertical flow regime at IBSR 2<sup>nd</sup> Annual International Conference, IIT Kharagpur, Kolkata, West Bengal on 7th March to 9th March 2024. s