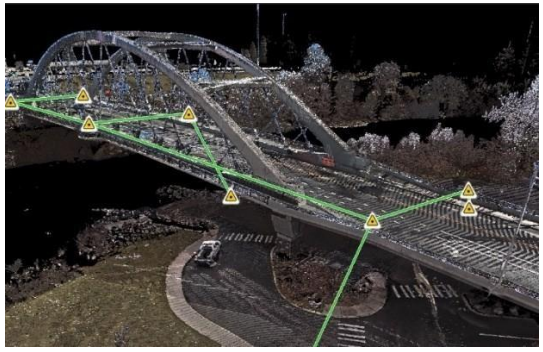
VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

One day Workshop

Hands-on 3D Mapping for Engineering Applications using Terrestrial LIDAR



9th October 2026 (Friday)

Organized by

School of Civil Engineering (SCE), VIT, Vellore – 632014

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ABOUT VIT

VIT was established with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis. The campus has a cosmopolitan atmosphere with students from all corners of the globe. Experienced and learned teachers are strongly encouraged to nurture the students. The global standards set at VIT in the field of teaching and research spur us on in our relentless pursuit of excellence. In fact, it has become a way of life for us. The highly motivated youngsters on the campus are a constant source of pride. Our Memoranda of Understanding with various international universities are our major strength. They provide for an exchange of students and faculty and encourage joint research projects for the mutual benefit of these universities. Many of our students, who pursue their research projects in foreign universities, bring high quality to their work and esteem to India and have done us proud. With steady steps, we continue our march forward. We look forward to meeting you here at VIT.

ABOUT SCE

The School of Civil Engineering (SCE) is a part of the institute since its inception. The school has grown tremendously over the past forty years and is now recognized as one of the major engineering schools in VIT. SCE is ranked in the 201–275 band in QS world ranking and 8th in India for Civil and Structural Engineering. The school has faculty members from

elite institutions across the globe. Besides high- quality teaching and research at both UG and PG levels, faculty members of the school are actively involved in executing a number of R&D and Consultancy projects from government agencies including DST, ISRO, UGC, AICTE, and also from many reputed industries.

ABOUT THE PROGRAMME

3D laser scanning technology or popularly known as LIDAR is a Light Detection and Ranging Technology that helps to create an accurate 3D representation of any given earth structure such as buildings, dams, roads, forest, etc. The technology consists of emitting millions of infrared light pulses every second from a laser scanner to the target. The coordinates results in "point cloud" consisting of millions of data points with X, Y, Z coordinates. This data can then be used to prepare the 3D maps after removing the unwanted noises. The scanning takes 3 minutes of time with modern ground based terrestrial laser scanning systems having an accuracy of 6 mm. The ground-based LIDAR system can be used for various engineering applications like Digital Twins, scanning buildings, preservation of heritage buildings, area volume calculations, highway asset management, identifying structural deformation, slope instability analysis, etc.

The present workshop aims to give the participants a full-fledged knowledge of the latest ground-based LIDAR technology with more focus on practical demonstrations rather than theoretical lectures. At the end of the workshop, the participants will be well versed with the working principle of LIDAR and will know how the LIDAR technology can be used to capture the 3D of any given structure.

TOPICS TO BE COVERED

1) Introduction to LIDAR technology and its applications in Engineering.
2) Demonstration of laser scanner for indoor and outdoor scanning.
3) Demonstration of importing of collected scan data to post-processing software for automatic/manual registration of scans and final 3D map preparation.

TARGET GROUP

- Students and Research scholars
- Faculty members from academic institutions
- Government/ Non-Government officials

REGISTRATION FEE

- **Rs.300/-** (Students UG and PG)
- **Rs.500/-** (Research Scholars PhD/MS)
- **Rs.1000/-** (Faculty members)
- **Rs.1500/-**(Govt./Non-Govt. officials)

Registration charges include entry to lectures, demonstrations, course material, snacks and lunch. The participants are selected based on first come first serve.

VENUE; DATE & TIME

CDMM 213, SCE, VIT; 09-10-2026/ 9.00 am - 5.00 pm

CONTACT

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REGISTRATION

Full Name : ----------
Designation : ----------
Department : ----------
Organization : ----------
Address : ----------
Mobile number : ----------
Email ID : ----------

Type of Registration : ----------

Signature of student : ----------

Signature of HOD/Principal: ----------

Please send the above details along with online transaction number through email to the coordinator on or before 8th October 2026. Payment should be made through online only using the link below. **https://events.vit.ac.in/**