

ONLINE LECTURE SERIES FOR STUDENTS ON ADVANCEMENTS AND TRENDS IN CIVIL ENGINEERING IN ASSOCIATION WITH CIVIL ENGINEERING STUDENTS COUNCIL

A talk on “*Civil Engineering in a Changing World*” was conducted by Dr. Lakshman Nandagiri, Professor NITK, Surathkal on 16/07/2021. Director, NIT Goa, Prof. Dr. Gopal Mugeraya addressed the function. The event was conducted on Cisco webex platform and was attended by the HoD, faculty and students of the department.



Dr. Lakshman gave an overview of Civil Engineering field. He spoke about the various domains and their importance in Civil Engineering. Modern Civil Engineering marvels such as Pir Panjal railway tunnel, Jammu and Kashmir which is the longest tunnel in India and second largest in Asia, Bandra -Worli sea link which is a cable stayed bridge built with PSC steel viaducts, Statue of unity, Gujarat, world's tallest statue of 182 m, Millau Viaduct-Europe which is the highest bridge in Europe standing 890 feet above the ground were discussed in lecture.

Dr. Lakshman also spoke above the various changes such as societal changes, new technologies such as GIS, advanced sensors and instrumentation, smart materials, trenchless cabling, underground tunneling and precast components were discussed in detail in the lecture. The different carrier choices available for Civil Engineering students were explained in the lecture.

A few snapshots of the event are below:

Civil Engineering is Everywhere

- Civil Engineering is a composite of many specific disciplines.
 - Structural
 - Environmental
 - Transportation
 - Geotechnical
 - Hydraulics & Water Resources Engg
 - Construction Management

The slide features a background image of a large-scale construction site with a complex steel framework.

International Space Station

The International space station is a collaborative engineering marvel. Constructed primarily at ground-level facilities and launched into space on rockets or in shuttles, the space station is the only permanent structure to be assembled in space. The assembly logistics are mind boggling as each module had to be dry fitted on Earth so that astronauts in space suits could easily assemble them in the vacuum of space. This might possibly be the greatest achievement in human history to this point.

The slide displays six images of advanced construction materials, each with a caption:

- Self Healing Concrete
- Photocatalytic Glass
- Kinetic Facade
- Kinetic Bricks
- 3D Printed Concrete
- Thermal Bridge

The slide number 35 is visible at the bottom right.

Career Options

- Government – IAS, IES, IFS, PWD (Competitive exams)
- PSUs – Oil companies, Coal India, etc. (GATE)
- Construction Companies – HCC, AFCONS, Gammon India, L&T, etc.
- Consulting Sector – Atkins, TCE, Mott MacDonald, etc.
- IT/Financial Sector
- Academics/Research – M.Tech, MS, PhD
- Entrepreneur/Start up

The slide number 40 is visible at the bottom right.