

**Expert Lecture on  
Innovative Materials and Construction Technologies  
by  
Er. Prashant S. Hadkar  
Consulting Structural Engineer,  
Empire Tower, Dasara Chowk, Kolhapur**

Date: 15<sup>th</sup> September, 2022

**Day:** Thursday

On the occasion of Engineer's Day Hon'ble Chief Guest Er. Prashant S. Hadkar and I/C Director Prof. (Dr.) P.D. Patil garlanded Bharat Ratna Sir M. Visvesvaraya in presence of all Department of Technology faculty members and students.



**Garlanding of Sir M. Visvesvaraya**

Expert lecture on 'Innovative Materials and Construction Technologies' was conducted at the Department of Technology, Shivaji University, Kolhapur on 15<sup>th</sup> September, 2022. The eminent speaker Er. Prashant S. Hadkar, Consulting Structural Engineer, Empire Tower, Dasara Chowk, Kolhapur was available as Chief Guest and resource person to guide the students of B.Tech. Civil Engineering.



**Felicitation of Chief Guest Er. Prashant S. Hadkar by Er. M.S. Salunkhe**

After felicitation, Dr. P.P. Phadnis, Assistant Professor, introduced Chief Guest and elaborated on the work done in this field of Civil-Structural engineering and requested the expert to enlighten the students.



**Dr. P.P. Phadnis, Assistant Professor, B.Tech (Civil Engineering) introducing Chief Guest Er. Prashant S. Hadkar**

Initially, he stated that nowadays infrastructure development is very fast in India. To accept the new challenges of the Construction field, it is essential to use new construction materials. Fe 550D is the new type of steel which is upcoming in the market and is manufactured by quenching Technology and resulting in high strength and more ductility. The utilization of Fe 550D will result in Earthquake resistant structure.

“To reduce Carbon Dioxide” is the prime objective of the construction industry. To achieve this, ‘concrete’ and ‘steel’ is to be replaced by other alternatives. It is needed to propose new options like ‘Green Concrete, and ‘Paper Crete’ for effective and efficient replacement of conventional concrete.

In recent years Fibre Reinforced Polymer (FRP) Rebars are suggested as a replacement for conventional rebars. The tensile strength of FRP Rebars is within the range of 1350MPa to 1550MPa. However, FRP bars are volatile. To overcome this, it is required to provide more concrete cover for RCC structural elements.

While designing Exhibition Hall, Banquet hall, Community Centres large area free from obstruction is essential to be provided. This large column-free area can be obtained by the “Post Tensioning Technique”. To provide sufficient headroom, it is needed to decrease the height of the beam. The same can be obtained by applying “Post Tensioning in beam”.



**Er. Prashant S. Hadkar during speech**



**Er. Prashant S. Hadkar during speech**



**Faculty Members and Students**



At the last, Er. M.S. Salunkhe, Coordinator, Civil Engineering program proposed the vote of thanks.

After Expert Lecture Poster Presentation Competition was held.



**Poster Presentation**



**Poster Presentation**