



Learn Beyond

**KPR Institute of Engineering and Technology**

(Autonomous, NAAC "A")

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**CE097**

**NBA Accredited**

(CSE, ECE, EEE, MECH, CIVIL)

**PREDICTING STRUCTURAL DURABILITY WITH ADVANCED AI TECHNIQUES**

<b>Event No</b>	CE097
<b>Organizing Department</b>	Civil Engineering
<b>Date</b>	15/05/2023
<b>Time</b>	11:00 AM to 12:00 PM
<b>Event Type</b>	Expert Talk
<b>Event Level</b>	Dept. Level
<b>Venue</b>	The Legend
<b>Total Participants</b>	20
<b>Faculty - Internal</b>	20

Related SDG



Involved Staffs

Sl	Name	Role
1	Vivek D	Convenor

Outcome

On May 15, 2023, a guest lecture on "Predicting Structural Durability with Advanced AI Techniques" was conducted by Dr. N Yuvaraj, an esteemed expert in the field of AI and structural engineering, at The Legend, KPR Institute of Engineering and Technology, Coimbatore.

Event Summary


On May 15, 2023, a guest lecture on "Predicting Structural Durability with Advanced AI Techniques" was conducted by Dr. N Yuvaraj, an esteemed expert in the field of AI and structural engineering, at The Legend, KPR Institute of Engineering and Technology, Coimbatore. The lecture aimed to provide an in-depth understanding of how advanced AI techniques can be applied to predict the durability of various structures, ultimately leading to improved safety, maintenance strategies, and cost savings. This report summarizes the key insights and highlights from Dr. Yuvaraj's lecture.

Key Points:

- Introduction to Structural Durability:** Dr. Yuvaraj initiated the lecture by introducing the concept of structural durability and its significance in ensuring the long-term performance and safety of civil engineering structures.
  - Challenges with Traditional Approaches:** The speaker highlighted the limitations of conventional methods employed for predicting structural durability, such as physical testing and numerical simulations.
  - The Role of Advanced AI Techniques:** Dr. Yuvaraj explained how advanced AI techniques, including machine learning (ML) and deep learning (DL), can address the limitations of traditional approaches.
  - Data Acquisition and Preprocessing:** The speaker emphasized the importance of acquiring high-quality data for training AI models.
- Dr. N Yuvaraj's guest lecture on "Predicting Structural Durability with Advanced AI Techniques" provided valuable insights into the trans-formative potential of AI in the field of structural engineering. The integration of AI models with data acquisition, preprocessing, and SHM systems allows for accurate predictions of structural durability, leading to informed decision-making, optimized maintenance strategies, and enhanced safety. This lecture showcased the exciting possibilities offered by AI and its ability to revolutionize the future of structural engineering.

 KPR Institute of Engineering and Technology  
Learn Beyond (Autonomous, NAAC "A")

Department of Civil Engineering



**EXPERT TALK**  
ON




**Predicting Structural Durability with Advanced AI Techniques**



**Dr. Yuvaraj N**  
Professor & Head  
Department of Computer Science and Engineering  
KPRIET

MAY  
MONDAY 15 AT 11:00 AM  
2023

Venue: The Legend

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\*\*\* END \*\*\*