

One Week Online Faculty Development Program on Computer Diligence in Civil Engineering and Application for Sustainable Development

Date of Event: July 11–15, 2022

Organizers: Civil Engineering Department, JUIT

An online one-week Faculty Development Program on ‘Computer Diligence in Civil Engineering and Application for Sustainable Development,’ was organized by the Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Waknaghat from July 11–15, 2022. The program was successfully completed under the auspices of

- Prof. Rajendra Kumar Sharma – Vice Chancellor of JUIT, Waknaghat and Patron of the organized FDP by Civil Engineering Department.
- Prof. Ashok Kumar Gupta – Dean of Academics & Research of JUIT, Waknaghat
- Prof. Ashish Kumar – HOD of Civil Engineering Department of JUIT, Waknaghat and Program Chair of the organized Workshop by Civil Engineering Department.
- Dr. Rishi Rana – Assistant Professor of Civil Engineering Department of JUIT, Waknaghat and Program Convener of organized Workshop by Civil Engineering Department
- Dr. Saurav - Assistant Professor of Civil Engineering Department of JUIT, Waknaghat and Program Convener of organized Workshop by Civil Engineering Department

The FDP on ‘**Computer Diligence in Civil Engineering and Application for Sustainable Development**’ comprised mainly of invited and guest lecturers from eminent speakers of renowned institutes covering multifaceted aspects on progress, developments, legislations, and existing trends in civil engineering with applications of computer related software’s and models. Table–1 highlights the program schedule of the conducted FDP including the names and organizations of the speakers along with the title of lectures (talks) delivered by them.

Table 1: Schedule and Details of Lecture presented by different speakers in the FDP 2022

| FDP-"Computer Diligence in Civil Engineering and Application for Sustainable Development" Schedule, 2022 | | | |
|---|-------------------|---|--|
| Date | Time | Speakers | Topics |
| 11/07/2022 (Monday) | 10:30AM-10:45 AM | Inaugural Session | <i>Inaugural Lecture</i> |
| | 10:45AM-12:00PM | Dr. Hari Narayan Tiwari, PhD, IITR | <i>Water and sustainable development using HEC-RAS (Hydrologic Engineering Centers -River Analysis System</i> |
| | 02:30PM-04:00PM | Dr. Anjani Kumar Shukla, IIT BHU | <i>Common Failures in Structures and its remedial measures using ANSYS.</i> |
| 12/07/2022 (Tuesday) | 10:30 AM-12:00PM | Mr. Piyush Mahviya, Structural Design Consultant. | <i>Analysis and design of low rise residential building using ETABS</i> |
| | 02:30 AM-04:00 PM | Dr. Sumesh Sood, Department of Computer Science, HPU, Shimla. | <i>Waste water contamination prediction modeling using Machine Learning.</i> |
| 13/07/2022 (Wednesday) | 10:30 AM-12:00 PM | Dr. Chembolu Vinay, Department of Civil Engineering, IIT Jammu | <i>River Modeling with river corridor vegetation for sustainable river ecosystem.</i> |
| | 02:30 PM-04:00 PM | Dr. Shivang Shekhar, Department of Civil Engineering, IIT, Mandi. | <i>Computer Applications in Lifetime Seismic Vulnerability Assessment of Ageing Infrastructure Systems".</i> |
| 14/07/2022 (Thursday) | 10:30 AM-12:00 PM | Dr. Yoga Lakshmi, Department of Environmental Technology, Central University of Bathinda, Punjab. | <i>Environmental informatics for solid and hazardous waste management: Advances, Challenges and Perspectives</i> |
| | 02:30 PM-04:00 PM | Dr. Amit Kumar, Department of Civil Engineering, MNIT Jaipur | <i>Application of AI/ML in the management of municipal waste/wastewater.</i> |
| 15/07/2022 (Friday) | 10:30 AM-12:00 PM | Dr. Mahesh Pal, Dept. of Civil Engg., NIT Kurukshetra | <i>Deep Learning based remote sensing classifications.</i> |
| | 02:30 PM-04:00 PM | Dr. Ickkshaanshu Sonkar, Department of Civil Engineering, IIT, Ropar. | <i>Computer Applications in Water Resource Planning and Management.</i> |
| | 04:00PM-05:00PM | Prof. Ashish Kumar, HOD CE, JUIT | <i>Closing Ceremony</i> |

The FDP was conducted mainly to gain knowledge on the current practices of civil engineering and its related trends in software and computer applications and to provide a platform for interaction between academicians, senior scientists, research scholars, NGO's and all other personnel involved in civil engineering management at different levels. Further, the FDP was conducted so that the faculty members and the different participants could get more acquainted with recent developments and prevailing opportunities for research in civil engineering and its growing trends and applications with various software development with additional and pertinent information which if required could be incorporated in up gradation of existing courses or development of new courses to make the students more aware. The program started at 10.30 AM in the morning and continued till 4 pm in the afternoon on the first day with minimum of two lectures per day followed by question-answer sessions on the topics presented by different eminent speakers.

The participation in the FDP was overwhelming with a large number of participants from outstation locations with some participants joining from Karnataka, Gujarat, Chhattisgarh, and other such states. The overall summary of the participants present in the Workshop program is summarized in Table 2.

Table 2: Summary of participation Details in the FDP 2021

| | |
|---|----|
| Total Number of Registered participants | 63 |
| Total Number of external participants | 45 |

Other Salient Features

- Video Recording of all lectures by the speakers for the Workshop available with the organizing committee.
- Presentation slides of all lectures by the speakers for the FDP available with the organizing committee and has been distributed to participants
- Certificates of participation issued to all registered participants.
- Certificates of resource persons issued to all the listed speakers
- Feedback collected from participants for further improvement in conducting such future online FDP's
- Feedback collected from speakers for their inputs in conducting such future online FDPs.

Summary Statistics of Feedback received from Participants and Speakers are summarized below in Tables 3 and 4 respectively

Table 3: Participant feedback details of the FDP, 2022

| | |
|---------------------------------------|---|
| Total number of participants feedback | 63 |
| Overall average feedback score | Excellent (75%); Very Good (22%); Good (3%) Based on a 5-point scale rating system (1- 5; [poor to excellent]) |

Table 4: Speaker feedback details of the FDP, 2022

| | |
|----------------------------------|---|
| Total number of Speaker feedback | 10 |
| Overall average feedback score | Excellent (71%); Very Good (29%); Based on a 5-point scale rating system (1- 5; [poor to excellent]) |