

**ONE DAY WORKSHOP  
ON  
TEACHING STRUCTURES TO STUDENTS OF ARCHITECTURE  
INNOVATIVELY**

**VENUE:**SCHOOL OF PLANNING &ARCHITECTURE, JAWAHARLAL NEHRU  
ARCHITECTURE &FINE ARTS UNIVERSITY, MASAB TANK.

**DATE :** 24.03.2017 **TIME:** 9:30 AM TO 5:00 PM

**Attended by AsstProf.Diwakar-Structural Engineer and Asst.Prof.Srilekha-Architect**

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**Opening speech by Prof. KavithaDaryani  
Vice-chancellor of JNA&FAU.**

**Issues addressed:**

- Need for the workshop,
- The Alarming increase in the number of architecture students failing in the civil subjects (Structures, BCM, Surveying, estimation etc.)

**Suggestions:**

- Counseling, provision of problems discussing platform and innovative ideas discussing forum set up in every college.

**Speech by Prof. Pradeep,**  
Registrar ,JNA&FAU.  
Basic introduction about JNA&FAU, University.

**Speech by Dr.S.Kumar,**  
Principal,SPA

**Issues addressed:**

- Problems arising which needs to be addressed from a student's perspective.
- Skills development programs initiation.
- Lack of motivation might be a prime concern.

**Suggestions:**

- Practical teaching methods.
- Debates and involvement of students in the process of teaching.

**11:20am to 12:00pm**

Introduction and open discussion session by all the participating structures and junior design faculties from various colleges from the twin cities affiliated to JNA&FAU.

The main concept and focus was on the Structures faculty.

Issues in the first session of discussion was "Why did you choose an Architecture college to teach structures??" by the Er.Ar.Anchuri.

All the introductions went on with basic introductions and a special briefing by structures faculty of various colleges addressing the main question.

**12:00pm to 1:15pm**

**Content :**

Issues to be addressed specially by the structures faculty teaching in an architecture institute.

Discussions of the problems pertaining, student-teacher-university-college issues.

**Session :**

**Pedagogy of structural engineering to students of architecture by Er.Ar.S.P.Anchuri**

- Discussed the relation between architecture and engineering.
- How both of them go hand in hand.
- The importance of implementation of Design of Structures in the Architectural Design subject.

**Suggestions:**

- Research cell in the campus
- Architect and structures faculty collaboration for all design subjects semester like design. Surveying estimation etc.,.

**Suggestions from the faculty:**

- Question paper remodeling
- Getting back a few things from RR syllabus/contents( structural analysis report in 6th semester)

**1:15pm to 2:15pm**

**SESSION:**

**Perspective of Architects regarding structures,suggestions/recommendations in teaching by AR.ER.BHARATH GOWDA SIR**

- Presented a paper that was presented by him earlier in japan council meet for engineers and architects.
- The paper is a dialogue/debate/discussion between an architect and an engineer about whose profession deals with what.

**3:00pm to 3:20pm**

- Role of teachers from structures in architectural teaching.
- Understanding the style of architectural education, role of teachers , approach towards students and colleagues.
- \*the 3 a's theory

Availability

Adaptability

Aggressiveness

### 3:25pm to 4:30pm

- Works of ar.er.bharathgowda sir
- Ar.er.bharathgowda has given a ppt of all his works right from B.Arch thesis to his most recent private works
- His journey with american firms, his experiments with tensile ,geo-desic structures.
- His research in Structures.
- How good designs need good engineering support and how an architect can handle these situations.

### **Reflections / learnings:-**

The workshop was meeting the contemporary need and helpful to understand the basic principles of teaching

- It is useful for faculty members to experience such platform as they were finding out few solutions to overcome with some pedagogical implications while dealing structural subjects to the students of architecture.
- Faculty feel teaching by giving practical view of structures in the class room itself will be the effective way of teaching
- Conceptual understanding retains facts for longer duration
- Being a faculty One should know the aim and objective of the education
- Continuous assignments and presentations helps the students to improve subject knowledge
- Teaching with proper planning helps in getting good results
- To display the things made by students in class would help students to feel honor.
- Reflections to be given not for student, but the work done by him/her.
- Since every subject is new for the students in the first semester why do they feel difficulty in structural engineering subjects, the faculty should find an appropriate solution for this.
- Students should be motivated to know the importance of structural engg subjects in Architecture.
- It is valuable to make the students comfortable with subject in the class room by creating fearless environment
- Overall the workshop was helpful to guide the faculty members to improve their analytical skills and abilities in teaching students as to reduce failure percentages in their end examination.

## **CONCLUSION :**

This workshop gave an idea in terms of finding new techniques/approach methods in teaching structures to the students of architecture. Methods and going to be implemented in teaching in the subject structural Design.

**-Asst.Prof.Er.Diwakar.**

The overall discussion gave an idea about the importance of collaboration of the teaching faculty / the involvement of an Architect faculty into the civil subjects right from the starting of the course. This is going to be implemented with the involvement of Architect faculty in the subject of structural design.

**-Asst.Prof.Ar.Srilekha.**

We got to know about the typical structural forms and application of structural mechanic forms (graphs). We got to know about the concepts used ,like the tornado inspired structural designs etc.,. We got to see and know about few Architect – Engineers like Ar.Er.Bharath Goda projects ranging from college thesis to his projects in USA to present projects like the walkway (Pedestrian bridge) in Bangalore.

**Student's opinion**