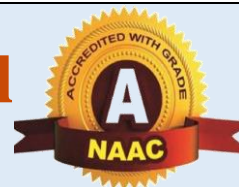




# Internal Quality Assurance Cell

Swami Vivekanand Subharti University, Meerut



**Title:** Seven days Faculty Development Programme on “**Advanced Concepts of Outcomes-based Education**”

**Date:** 07<sup>th</sup> February 2022 to 13<sup>th</sup> February, 2022

**Organized by:** Internal Quality Assurance Cell, Swami Vivekanand Subharti University, Meerut in association with InPods Pvt. Ltd.

**Collaborated by:** Faculty of Law, Faculty of Engineering & Technology and Faculty of Pharmacy

**Associated by:** InPods Pvt. India Ltd., Pune

**Participants:** 361

Internal Quality Assurance Cell of Swami Vivekanand Subharti University, Meerut has organized a seven days Faculty Development Programme on “**Advanced Concepts of Outcomes-based Education**” in collaboration with Faculty of Law, Faculty of Engineering and Technology and Faculty of Pharmacy in association with InPods Pvt. India Ltd.

Director IQAC, Dr. Neetu Panwar and Dr. Vaibhav Goel Bhartiya, Principal, Faculty of Law welcomed the distinguished speaker and all the participants of the FDP. Our Honorable Vice Chancellor **Maj Gen (Dr) G.K.Thapliyal** has addressed the participants and gave his blessings for the successful conduction of FDP.

## **Objective of the Faculty Development Programme is:**

The objective of this Faculty Development programme on OBE is to enhance the knowledge about the Outcome Based Education and its implications in teaching, assessment, evaluation and accreditation.

## **Topics were covered under the FDP are:**

1. Quality Assurance and Program Design Concepts.
2. Top-down Programme Design.
3. Course Outcome Design.
4. Questions Design to Measure Cos.
5. CO-PO attainment, Computation and outcome analysis.
6. Use of technology for CO-PO attainment computation and outcome analysis.
7. Improving employability outcomes.

At the end of the FDP Programme, Vote of Thanks is given by Pro-Vice Chancellor **Dr. Abhay Shankare Gowda** to distinguished Guest Mr. Ajay Bhagwat, the participants. He also congratulated the IQAC and associated colleges i.e. Faculty of Law, Faculty of Engineering and Technology and Faculty of Pharmacy for the successful conduction of 7 days FDP on "**Advanced Concepts of Outcomes-based Education**".

# Screen Shots of the Faculty Development Programme:

## Day One Screenshots:

**POs for Zoology**

**1 Knowledge**

- Understand the nature and basic concepts of cell biology, Biochemistry, Taxonomy and ecology
- Understand the applications of biological sciences in Apiculture, Aquaculture, Agriculture and Medicine

**2 Skills**

- Perform procedures as per laboratory standards in the areas of Biochemistry, Bioinformatics, Taxonomy, Economic Zoology and Ecology
- Analyse the relationships among animals, plants and microbes
- Effective Communication Skills
- Critical thinking

**3 Attitude**

- Social Interaction
- Effective Citizenship
- Ethics
- Environment and Sustainability
- Self-directed and Life-long Learning

**POs for Economics**

- Understand the behaviour of Indian and World economy,
- Understand the behaviour of financial and money markets and perform cost-benefit analysis for making investment decisions

- Determine economic variables including inflation, unemployment, poverty, GDP, Balance of Payments using statistical methods
- Analyse macroeconomic policies including fiscal and monetary policies of India
- Effective Communication Skills
- Critical thinking

- Social Interaction
- Effective Citizenship
- Ethics
- Environment and Sustainability
- Self-directed and Life-long Learning

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**Graduate Attributes**  
21<sup>st</sup> Century Competence

- Disciplinary knowledge
- Communication Skills
- Critical thinking
- Problem solving
- Analytical reasoning
- Research-related skills
- Reflective thinking
- Information/digital literacy
- Self-directed learning
- Cooperation/Team work
- Scientific reasoning
- Multicultural competence
- Moral and ethical awareness/reasoning
- Leadership readiness/qualities
- Lifelong learning

**1 Knowledge**

**2 Skills**

**3 Attitude**

KNOWLEDGE

SKILL

ATTITUDE

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# Day Two Screenshots:

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Webcams Zoom: 77% Screenshot

## Components of Course Outcome Design

**Action**  
Represents a Knowledge / Skill / Attitude activity the learner should perform. An action is indicated by an action verb representing the concerned cognitive process.  
e.g. Apply, Clarify, Classify

**Knowledge**  
Represents the specific knowledge from any one or more of the four knowledge categories  
Factual, Conceptual, Procedural and Metacognitive

**Criteria**  
Represent the parameters that characterize the acceptability levels of performing the action (This is an optional element of CO)  
e.g. Compare

**Condition**  
Represents the process the learner is expected to follow or the conditions under which to perform the action (This is an optional element of CO)  
e.g. Use ..., Show..

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## Beyond Bloom's Taxonomy

**Cognitive Domain**

- Remembers
- Understands
- Applies
- Analyzes
- Evaluates
- Creates

**Bloom's Taxonomy**

**Psychomotor Domain**

- ORIGINATION
- ADAPTATION
- COMPLEX OVERT RESPONSE
- MECHANISM
- GUIDED RESPONSE
- SET
- PERCEPTION

Degrees of competence in performing a skill  
– Learning from initial exposure to mastery

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# Day Three Screenshots:

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## LEARNING OUTCOMES

What do I want students to know when they leave this course?

## INSTRUCTIONAL STRATEGIES

What kinds of activities in and out of class will reinforce my learning objectives and prepare students for assessments?

## ASSESSMENTS

What kinds of tasks will reveal whether students have achieved the learning objectives I have identified?

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## MISALIGNMENT IN O-I-A

If assessments are misaligned with learning objectives or instructional strategies, it undermines both student motivation and learning.

Outcomes is Learning to APPLY ANALYTICAL SKILLS

Assessment measures only FACTUAL RECALL

Your objective is for students to learn to *apply analytical skills*, but your assessment measures only *factual recall*. Consequently, students hone their analytical skills and are frustrated that the exam does not measure what they learned.

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# Day Four Screenshots:

**RELATIONSHIPS OF ASSESSMENTS WITH OBJECTIVES AND OUTCOMES**

|                            | PROGRAM EDUCATIONAL OBJECTIVES | PROGRAM OUTCOMES  | COURSE OUTCOMES   |
|----------------------------|--------------------------------|-------------------|---|
| <b>Scope</b>               | Very Broad                     | Program-Level     | Course-Level  |
| <b>Time to Learn</b>       | A few years                    | Weeks or months   | Hours or days   |
| <b>Purpose of Function</b> | Provide vision                 | Design Curriculum | Prepare lesson plans  |
| <b>Example of Use</b>      | Plan multiyear curriculum      | Plan courses      | Plan daily experiences, activities and Outcomes-based assessments |

**HOW MANY STUDENTS SHOULD REACH THE DESIRED COGNITIVE LEVEL?**

| 100%                   | Remember | Understand | Apply | Analyze | Evaluate | Create |
|------------------------|----------|------------|-------|---------|----------|--------|
| CO at Remember Level   | 80%      |            |       |         |          |        |
| CO at Understand Level | 40%      | 60%        |       |         |          |        |
| CO at Apply Level      | 20%      | 30%        | 50%   |         |          |        |
| CO at Analyze Level    | 15%      | 20%        | 40%   | 25%     |          |        |
| CO at Evaluate Level   | 15%      | 20%        | 35%   | 15%     | 15%      |        |
| CO at Create Level     | 0%       | 10%        | 35%   | 30%     | 15%      | 10%    |

# Day Five Screenshots:

Now viewing Hepsu Natha's screen  
Talking: Hepsu Natha

Webcams Zoom: 69% Screenshots

Course Outcome and Test Cases [Compatibility Mode] - Microsoft PowerPoint

| Subtopics   | Knowledge Level | Desired Cognitive Level | Action verb | Course Outcomes Statements  | Test cases  |
|---|-----------------|-------------------------|-------------|---|---|
| 1. Factors influencing hygienic practice                    | Factual         | Understand              | Identify    | Identify the factors influencing the hygienic practice                                | What are the factors that influences the hygienic practice                        |
| 2. Indications and purposes of hygienic care                | Factual         | Remember                | List        | List down the indications and purposes of hygienic care                               | Can you list down the indications and purposes of hygienic care?                  |
| 3. Care of the skin   | Procedural      | Apply                   | Implement   | Perform the procedure of skin care  | Perform the procedure of skin care.   |
| 4. Assessment of pressure ulcers                            | Factual         | Understand              | Explain     | Explain the assessment process of pressure ulcer                                      | How will you assess the pressure ulcers?  |
|   | Procedural      | Analyse                 | Examine     | Demonstrate the steps of pressure ulcer assessment                                    | Perform the pressure ulcer assessment.  |
| 5. Care of the eyes, nose, ears including assistive devices | Procedural      | Apply                   | Assess      | Exhibit the procedural care of eyes, nose and ears with the help of assistive devices | Show the procedure of care of eyes, nose, ears with the help of assistive devices |

Click to add notes

Slide 3 of 3 | Clarity | English (India)

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Staff (7)  
NAMES  
Dr. Abhishek Sangal (Panelist)  
Dr. Neetu Panwar (Panelist, Me)  
InPods Ed-Tech (Organizer)  
Mumtaz Sheikh (Panelist)  
Rupesh Pandey (Panelist)  
vishwas mishra (Panelist)  
Hepsu Natha (Presenter)  
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## Computation of Course-Level Attainment

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graph TD
    A[Aggregated Course Outcome Attainment] --> B[Direct Tools]
    A --> C[Indirect Tools]
    B --> D[Formative Exams]
    B --> E[Summative Exam]
    D --> F[CAT / IA / Unit exams]
    D --> G[MTE / Labs / Projects]
    E --> H[End term Exam]
    C --> I[Course end survey, Other surveys]
    F --> J["CAT Q1-C02, Q2-C01, Q3-C02"]
    F --> K["IA Q1-C03, Q2-C01, Q3-C04"]
  
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## GLOBAL or Course-level RUBRIC – COGNITIVE LEVEL, WEIGHT, SPT

|                        | Weight of Complexity | Student Performance Threshold | Student Performance Threshold rounded |
|------------------------|----------------------|-------------------------------|---------------------------------------|
| CO at Remember Level   | 0.2                  | 83.3%                         | 80%                                   |
| CO at Understand Level | 0.4                  | 71.4%                         | 70%                                   |
| CO at Apply Level      | 0.6                  | 62.5%                         | 60%                                   |
| CO at Analyze Level    | 0.75                 | 57.1%                         | 55%                                   |
| CO at Evaluate Level   | 0.9                  | 52.6%                         | 50%                                   |
| CO and Create Level    | 1.0                  | 50%                           | 50%                                   |

**100/(1+ COMPLEXITY WEIGHT)**

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98860243, Ext.... 4:00 PM  
3:40 PM  
1 - Associate P... 3:30 PM

Microsoft Excel - COURSE OUTCOME STATEMENTS

| UNIT        | SUB TOPICS                                | KNOWLEDG E LEVEL | DESIRED COGNITIVE LEVEL | ACTION VERB   | COURSE OUTCOME STATEMENTS  | TEST CASES  |
|-------------|---|------------------|-------------------------|---|--|---|
| I           | Growth and development                    | Factual          | Remember                | Identify  | CO1: Explain the concept of growth and development and characteristics of its various stages | How many stges of growth and development are there- a. 1 b.2 c.3 d.4  |
|             |   | conceptual       | Understand              | Classify  |  | What are the various stages of development?   |
|             | Stages of development                     | Conceptual       | Apply                   | Categorise  |  | What ae the substages of development?   |
|             |   | Procedural       | Analysis                | Justify   |  | What are the characteristics of childhood?  |
| Adolescents | Procedural                                | Evaluate         | Assess                  | Why is adolescent stage known as problematic stage? |  |   |
|             | Theory of cognitive development by Piaget | Factual          | Remember                | Identify  | CO 2: Explain the theories of Child  | 1. Which theory deals with cognitive development-<br>a. Piaget b. Erikson c. Kohlberg d. Freud<br>2. Which stages belong to Piaget's theory<br>a. Sensorimotor b. Concret operational<br>c. Preoperational d. All the above |

Staff (6)  
Dr. Neetu Panwar ...  
Hepsi Natha (Pan...  
InPods Ed-tech (O...  
Rupesh Pandey (P...  
vishwas mishra (P...  
Mumtaz Sheikh (...

Chat  
Please take time to attend this webinar!  
Regards,  
Ajay Bhagwat  
8408990777  
ajay@inpods.com

To: Rupesh Pandey... Send  
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# Day Seven Screenshots:

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### Courses of a Term and Their Contribution to POs

The diagram illustrates the contribution of four courses to seven Program Outcomes (POs). The POs are listed at the top, and the courses are listed below. Arrows indicate the contribution of each course to each PO.

| Course   | PO1  | PO2  | PO3  | PO4  | PO5  | PO6  | PO7  |
|----------|------|------|------|------|------|------|------|
| Course 1 | High | High | High | High | High | High | High |
| Course 2 | High | High | High | High | High | High | High |
| Course 3 | High | High | High | High | High | High | High |
| Course 4 | High | High | High | High | High | High | High |

POs: PO1, PO2, PO3, PO4, PO5, PO6, PO7

Course 1, Course 2, Course 3, Course 4

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Regards,  
Ajay Bhagwat  
8408990777  
ajay@inpods.com

To: Organizers and Panelists... Send

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## Brochure of FDP



**SWAMI VIVEKANAND**  
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**UNIVERSITY**  
UGC Approved Meerut



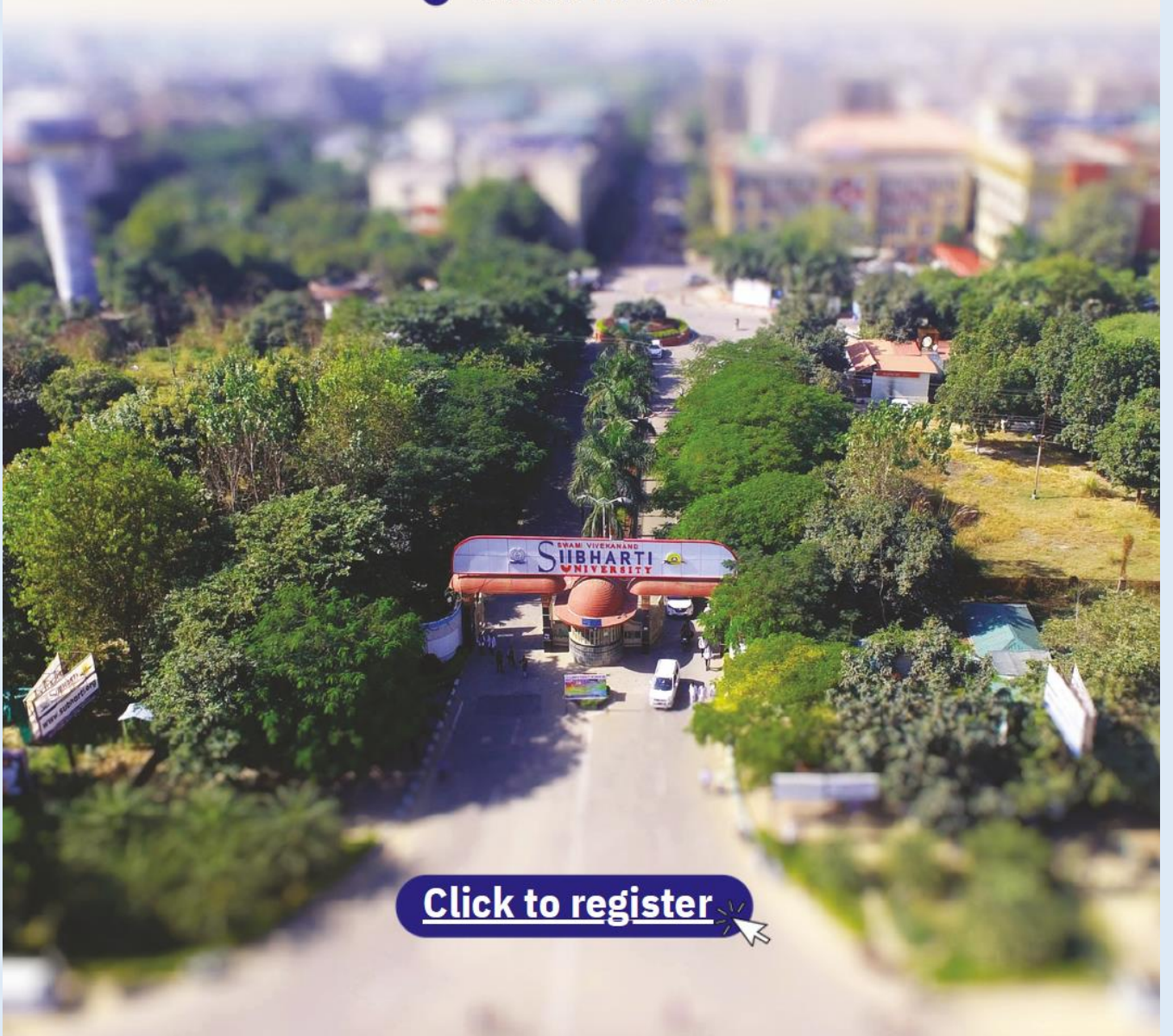
# JOIN US FOR A REVOLUTIONARY FACULTY DEVELOPMENT PROGRAM ON OUTCOME BASED EDUCATION

Organisers:

**IQAC, Faculty of Law, Faculty of Pharmacy, Faculty of Engineering and Technology**

**Starting 7th February till 13th February 2022**

**Time: 3:00 PM-4:30 PM**

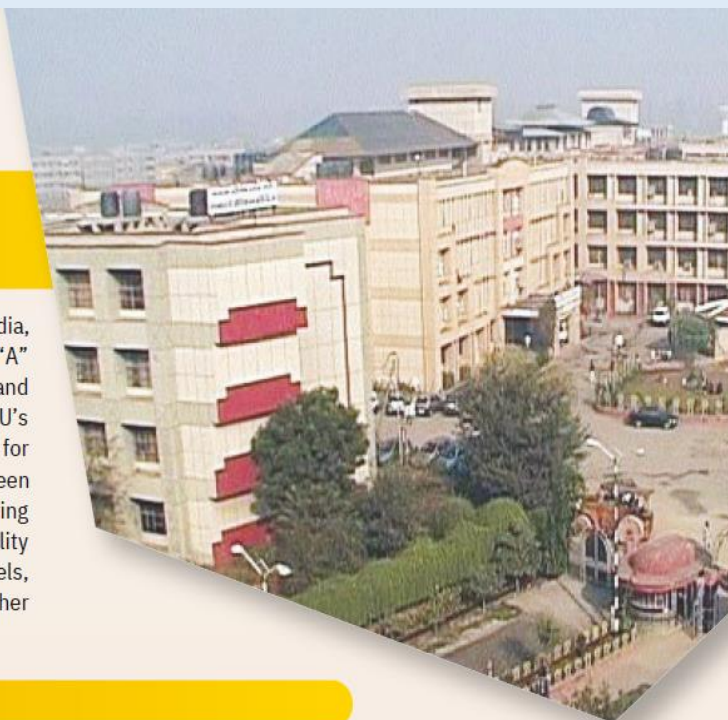


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## About Swami Vivekanand Subharti University

Ranked among the top 10% of Universities in India, Swami Vivekanand Subharti University is NAAC "A" Accredited and has received numerous National and International Awards. The University has over 58 MOU's with excellent infrastructure and an environment for research-driven learning. Spread across a lush green 250+ acre campus, the University has 14 faculties offering more than 220 programs, a 1000 bed multispeciality hospital, Libraries, fully equipped laboratories, hostels, auditoriums, banks, creche, stadium, cafes, and other recreational centers.



## About IQAC

Internal Quality Assurance Cell (IQAC) of Swami Vivekanand Subharti University (SVSU), Meerut was established on 12/09/2010 under the Chairmanship of the Hon'ble Vice-Chancellor of the University. SVSU was accredited with 'A' grade by NAAC in 2016. The principal aim of IQAC is to develop a structured system including cognisant, reliable and inclusive actions to improve the academic and administrative performance of the University.

## About the Faculty of Law, Swami Vivekanand Subharti University

Sardar Patel Subharti Institute of Law (SARPA-SIL) i.e. Subharti Law College (Faculty of Law, Swami Vivekanand Subharti University, Meerut) is among one of the top colleges of Law in the State of Uttar Pradesh. Subharti Law College was started in the year 2002. The Bar Council of India, under the Advocates Act 1961, duly accorded its approval to the University and the latest approval has been given vide its letter no. BCI: D: 328/2020 (LE/App/Afflin), 30.07.2020 to run the various academic courses under the Faculty of Law.

Twelve Batches of B.A.LL.B., Eight batches of LL.M. & Five Batches of M. Phil have already passed out and every student is successfully professing as lawyers or judges in either the Supreme Court of India, various High Courts, District Courts or with LPOs and MNCs, Corporate Legal Departments etc.

## Faculty of Pharmacy

The Faculty of Pharmacy, an Institute which blends quality Pharmaceutical Education with Industrial interaction for professional development of students. With visionary management, qualified and research oriented faculty members our students are assured to achieve their goals. The faculty fosters sharpening of skills and enhancement of knowledge base for students through various extra-curricular, co-curricular and curricular activities through faculty who not only keep themselves at par with the current developments but also contribute to the expansion of knowledge in their field of expertise.

## Faculty of Engineering & Technology

The Faculty of Engineering & Technology believes in participative learning, promoting inquisitive spirit, experimentations, research and development rather than drab theoretical teaching and transferring of information. It is rightly said that the child is not a vessel to be filled but a lamp to be lit. Our every effort is to make the students connect to their inner being, understand their potentials and shine in this world. We encourage them to become job givers instead of job seekers as this is the need of the hour. The teachers and students together can restore the glory and eminence of our country when we were acknowledged as the Vishwa Gurus, when the oldest universities of this world Taxila and Nalanda took birth in our nation.

## E-certificates will be issued to all participants

### SCHEDULE:

Starting 7th February till 13th February 2022.

Time: 3:00 PM-4:00 PM

Day 1

Quality Assurance and  
Program Design Concept

Day 2

Top-down Programme  
Design

Day 3

Course Outcomes Design

Day 4

Questions Design to  
Measure COs

Day 5

CO-PO Attainment, Computation  
and Outcome Analysis

Day 6

Use of Technology for CO-PO  
Attainment, computation and  
Outcome Analysis

Day 7

Improving Employability  
Outcomes

### GUEST SPEAKER



**MR. AJAY BHAGWAT**  
Director, Inpods India Private Limited

Ajay Bhagwat is an ed-tech expert of technologies for Academic Quality Assurance, Competency - based medical education (CBME), Outcomes-based education, and of technologies to improve outcomes of accreditations such as ABET, AACSB, NBA, NAAC accreditation.

Ajay is a passionate Computer and Mechanical engineer and has over 35 + years of professional experience. Ajay is dedicated to maintaining a reputation built on quality, service, and uncompromising ethics.

Ajay manages Product Engineering, Market and Business Development, and Delivery for InPods in India for the implementation of their state-of-the-art cloud-based technology platform for State and Private Universities, B-schools, Engineering colleges, and corporate training divisions.

Ajay passionately conducts Faculty Development Programs for the teachers in higher education to promote the culture of Outcomes-based Education. These FDPs are attended by more than 50,000 teachers since March 2020.

### Contact:

Email: [iqac@subharti.org](mailto:iqac@subharti.org) | Phone: +91 9898860243