FACULTY DEVELOPMENT PROGRAMME
ON
OUTCOME BASED EDUCATON FOR NBA ACCREDITATION

Organized by
Department of Computer Science & Information Technology
AND
Department of Mechanical Engineering

Sponsored by TEQIP II

10th – 12th October 2019

Technical Report

Coordinators

**Sowmya K.S**   **Remya.R**   **Shamnadh**   **Hareesh**

Day1: 10/10/2019(Thursday)

09.00-10.00 : Inauguration

All Participants registered for the Programme. It started with a silent prayer. Dr.Dileeplal , HOD ME, delivered the Welcome Speech. Dr.Bindhu Prakash ,HOD EEE, delivered the presidential address. The programme was inaugurated by lightning the lamp by Prof Dr Sasikumaran.S, Managing Director, AACHA and preside an inaugural address. The function was over by Vote of thanks given by Dr.Bejoy Abraham,HOD CS/IT Dept.

First Session: Introduction to OBE/NBA , Prof Dr.Sasikumaran.S, Managing Director, AACHA

The objective of the NBA is to assess and accredit professional programmes offered at various levels by the technical institutions on the basis of norms prescribed by the NBA
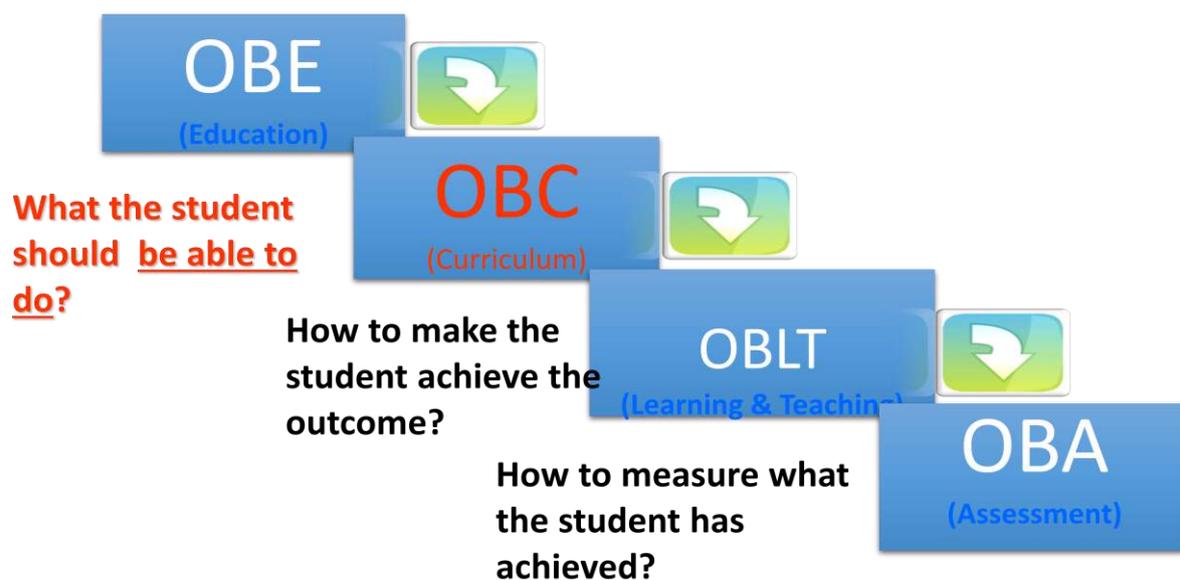

Next Session on Programme Criteria and SAR preparation Concepts :
 Prof Dr Sukesh Kumar.A (Director/AACHA)

Explained the different criteria and the sub criteria as specified in the evaluation guidelines of SAR. Completed Criteria 1 & 2. He also specified the corresponding documents to be kept for each sub criteria. He cleared all the doubts raised by the participants to prepare efficient SAR.

After noon Session : Vision, Mission((Institution/Departments)/PEOs :

 Prof Dr Shoukath Ali.K

Key constituents of Outcome based Education
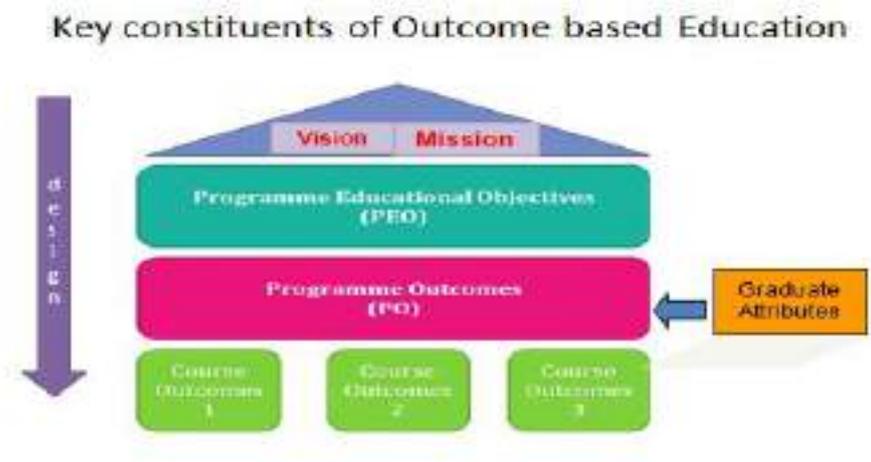
Institutional Strategy: Mission and Vision

- ✓ The mission, vision, values and goals collectively form a vital part of Institutional strategy
- ✓ Several companies have elaborate mission and vision statements that describe:
    - ✓ *Strategy for the future*
    - ✓ *How they are achieving their goals*
    - ✓ *How can they serve the world*
- ✓ Mission and Vision statements can be separate or merged
- ✓ The University, the College and each Department must have matching vision, mission statements

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Why Vision, Mission and Values

- Help the organization focus on what is really important
- Provides a snapshot view of the organization.
- People can learn about the Institute from the statement itself (*Always a reliable ride*)
- Bring together like minded Institutions or people with similar views and thoughts
- Create and develop a sense of belong among the people and look at the Institutions as "theirs."

How to Formulate Vision Statement

1) Team work involving all stakeholders
2) Discussions, Brain Storming
3) Gap analysis and/or SWOT analysis
4) Identify the the immediate and long term goals
5) Evolve vision, mission statements based on these discussions
6) Strategic plan

Importance of a Mission Statement

An effective organization will have a clear sense of direction

The entire institution as a system comprising of faculty, organizational policies and practices, the community around, and the government have a potential impact on the curriculum and the learning of students.

A curriculum will have integrity, if the institutional priorities, policies and the resource allocations harmoniously support the most important goals of undergraduate education.
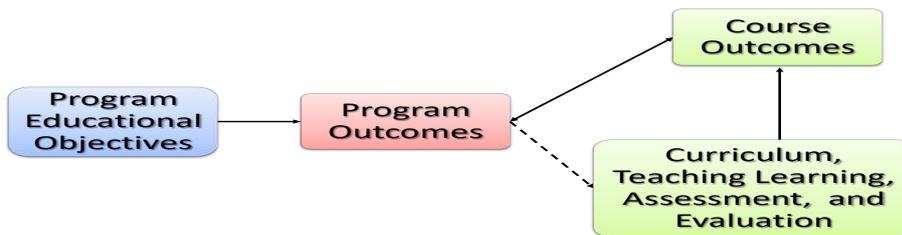

Prof Dr Sukesh Kumar.A

Explained the different criteria and the sub criteria as specified in the evaluation guidelines of SAR. Completed Criteria 3.
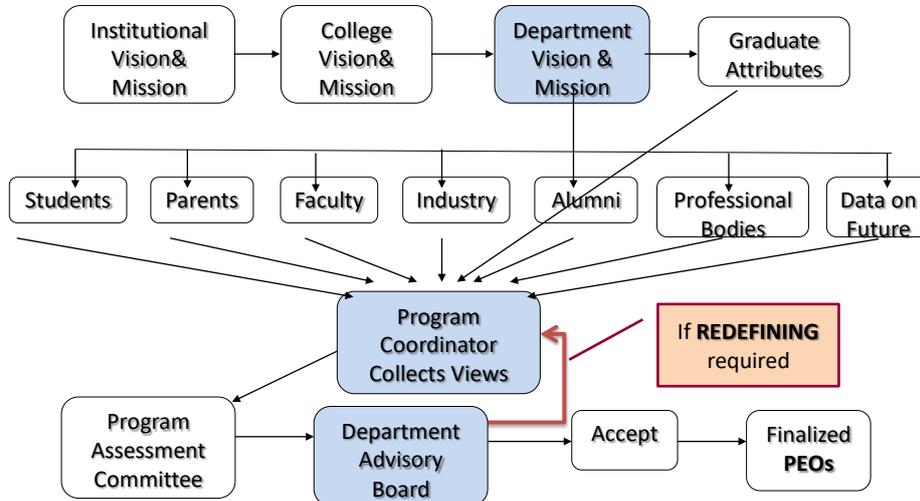
Day2: 11/10/2019(Friday)

Fore Noon Session on PEOs-Department Program Mission Mappings   Prof Dr Shoukath Ali

Frame Work of PEOs, POs and COs

Developing the PEOs

Consistency of PEOs with Mission

Department Mission Components	Program Educational Objectives				
	PEO1	PEO2	PEO3	PEO4	PEO5
Knowledge, skills, attitude and teamwork (emerging technologies)	√		√	√	
Brilliant career/ entrepreneurship sustainable competitive edge	√	√	√	√	√
Competent and empowered (teaching learning process and R&D environment)	√	√	√	√	√

Next Session on CO/PO/PSOs Mapping:: Prof Dr Sasikumaran.S Managing Director,AACHA

- COs are stated in the Curriculum in SAR
- COs could be embedded in a PO or a part of it
- How well do the CO statements match with the PO statements?
- COs can be around
- Reason out on the degree of match between COs and POs
- Answer to this question could be in terms of degree of match such as:

  Excellent   4 , Good   3, Fair   2, Little   1

CO to PO Mapping

CO FOR EACH COURSE		PROGRAM OUTCOMES												Weightage (%)
		PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	
COURSE	CO1	S	M		S	S		M						90
	CO2	S		M	S	S		S		M				85
	CO3	S			S	M							W	92
	CO4	S		M		S							W	90
Weightage (%)		85	90	94	89	90	89	92	95	88	93	90	89	

CO Attainment

- The assessments should be in alignment with the COs
- Question paper should be so set to assess all COs
- The average marks obtained in assessments against items for each CO will indicate the CO attainment
- Instructors can set targets for each CO of his/her Course
- Attainment gaps can therefore be identified
- Instructor can plan to reduce the attainment gaps or enhance attainment targets

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After noon Session on Programme Criteria and SAR Preparation –Continued: Prof Dr Sukesh Kumar.A

Explained the different criteria and the sub criteria as specified in the evaluation guidelines of SAR. Completed Criteria 4 ,5 & 6.

Next Session on Attainment Computations : Prof Dr Sasikumaran.S

Sample CO Attainment Calculation

Max Marks	12.5	12.5	12.5	12.5	50				
Course Outcomes		CO4			TOTAL OBTAINED	TOTAL MARKS ATTEMPTED	PERCENT, %	SCORES OR GRADING BASED ON SCALE OF 3	Target > ~60%
Name	T1-Q3	T1-Q4	T2-Q3	T2-Q4					
N. Madhukar (VTU)	5		10	10	25	37.5	66.67%	3	Y
Bickey Gurung	7		12	12	31	37.5	82.67%	3	Y
Mustafa Rashid	10		12	12	34	37.5	90.67%	3	Y
Adarsh P Nayak	6		12	12	30	37.5	80.00%	3	Y
Naveen Kumar (VTU)	10		9	10	29	37.5	77.33%	3	Y
Vijay Kumar (VTU)	1	1	12	12	26	50	52.00%	2	
Akash Koppa	9	8	10	10	37	50	74.00%	3	Y
Amsh K C	9	9	11	11	40	50	80.00%	3	Y

Name									
Vinod Kumar. M	1	(red)	12	7	20	37.5	53.33%	2	
Vivekananda .K.S	8	8	10	10	36	50	72.00%	3	Y
Yash J Ahuja	(blue)	(blue)	10	10	20	25	80.00%	3	Y
Yashaswini. B.K	5	(red)	9	9	23	37.5	61.33%	3	Y
Sushanth Darshan	(blue)	(blue)	12	11	23	25	92.00%	3	Y
Amarnath Reddy (DIP)	10	9	8	9	36	50	72.00%	3	Y
Chikanna. T (DIP)	5	5	12	11	33	50	66.00%	3	Y
Kiran. T.N. (DIP)	8	5	10	(blue)	23	37.5	61.33%	3	Y
Krupachandra (DIP)	(blue)	(blue)	1	1	2	25	8.00%	1	
Lokesh.M (DIP)	7	4	12	12	35	50	70.00%	3	Y
Umesh Kumar. B (DIP)	2	1	12	12	27	50	54.00%	2	
						SUM		154	46
						AVG GRADING		2.80	

Total No. of Students for Batch				57

COURSE OUTCOMES	GRADING AVG ON SCALE OF 3	DISTRIBUTION %		
		3	2	1
CO1	2.72	49 / 57 = 85.96%	0 / 57 = 0%	8 / 57 = 14.03%
CO2	2.65	44 / 57 = 77.19%	6 / 57 = 10.52%	7 / 57 = 12.28%
CO3	2.82	52 / 57 = 91.22%	0 / 57 = 0%	5 / 57 = 8.77%

More than 60% of Students Must Achieve 60% Marks

PO AND CO SCALE	3	Strongly Related
	2	Moderate
	1	Low

NUMBER OF STUDENTS SCORING > ~60%

COURSE OUTCOMES	% OF STUDENTS ACHIEVED CO	CO RESULT
CO1	85.96%	Y
CO2	77.19%	Y
CO3	91.23%	Y

GRADING AVG ON SCALE OF 3
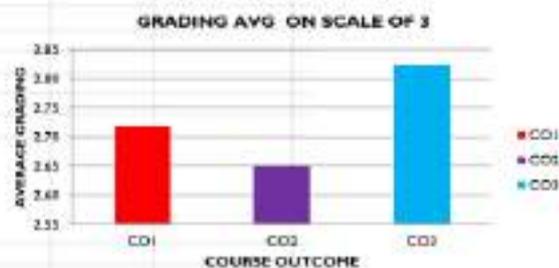
Day3: 12/10/2019(Saturday)

Fore Noon Session is on Programme Criteria and SAR Preparation –Continued : Prof Dr Sukesh Kumar.A

Explained the different criteria and the sub criteria as specified in the evaluation guidelines of SAR. Completed Criteria 8,9,10.

Next Session is on Attainment Computations : Prof Dr Sasikumaran.S

PO Attainment Calculation

Course Name	COs	CO Attainment, %	CO Result	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Quantity Surveying and Costing	CO1	95.00%	YES	95%	95%	-	32%	-	-	-	-	-	-	-	-
	CO2	35.00%	NO	-	-	-	-	-	-	-	-	-	-	-	-
	CO3	89.00%	YES	89%	89%	-	-	-	-	-	-	-	-	-	-
	CO4	24.00%	NO	-	-	-	-	-	-	-	-	-	-	-	-
Alternate Building Materials & Technology	CO1	75.00%	YES	50%	50%	-	-	-	-	75%	50%	-	-	-	25%
	CO2	75.00%	YES	50%	50%	-	-	-	-	75%	50%	-	-	-	75%
	CO3	75.00%	YES	50%	-	-	-	50%	-	75%	50%	-	-	-	50%
	CO4	75.00%	YES	75%	75%	75%	-	50%	-	50%	75%	-	-	-	-
Major Project Phase - II	CO1	100.00%	YES	-	-	-	-	-	-	100%	-	100%	-	-	-
	CO2	100.00%	YES	100%	100%	100%	100%	-	-	-	100%	100%	-	-	100%
	CO3	100.00%	YES	-	-	-	-	100%	-	-	-	100%	-	-	-
	CO4	100.00%	YES	-	-	-	-	-	-	-	-	100%	100%	-	-
			PO Attainment	80%	78%	72%	84%	72%	83%	71%	69%	98%	84%	75%	82%

CO PO Attainment calculation

EXIT SURVEY DATA ANALYSIS

PO No.	PO Description	Exist Survey Questions	0 (Not At All)	1	2	3	4	5 To a Great Extent	Total	Weighted Average	Percentage Attainment
PO1	An ability to apply the knowledge of mathematics, science, and engineering fundamentals to the solution of Civil Engineering problems.	To what level you are able to apply science and engineering concepts to problem solving	0	0	2	3	14	6	25	3.96	76%
		To what extent you are able to support technical problem solving	0	0	5	4	11	5	25	3.64	
PO2	An ability to identify and analyse Civil Engineering problems for meaningful solutions to form the basis for design of Civil Engineering system components.	To what extent you are able to analyse Civil Engineering problems	0	0	2	5	14	4	25	3.8	76%
PO3	An ability to design solutions for Civil Engineering problems and design system components.	To what extent you are able to design Civil Engineering components	0	1	4	7	10	3	25	3.4	68%
		To what extent you are able to design Civil Engineering systems (such as buildings, structures, roads etc.)	1	1	1	11	7	4	25	3.36	
PO4	An ability to conduct experiments, analyse and interpret data to provide valid conclusions.	To what extent you are able to analysis and interpret data	0	1	1	4	13	6	25	3.88	78%
PO5	An ability to apply appropriate techniques and	To what extent you are able to use state of art tools for	0	0	5	5	11	4	25	3.56	71%

PO Attainment Calculation

Summary of Results of attainment of POs

PO No.	Method of Assessment / PO Description	Direct Assessment (CIE)	Student Exit Survey	Course End Survey	Faculty Survey	Semester End Examination (SEE)	PO Attainment, %
	Weightage	50%	10%	5%	5%	30%	
PO1	An ability to apply the knowledge of mathematics, science, and engineering fundamentals to the solution of Civil Engineering problems	40%	8%	4%	4%	22%	77%
PO2	An ability to identify and analyse Civil Engineering problems for meaningful solutions to form the basis for design of Civil Engineering system components.	39%	8%	4%	4%	22%	77%
PO3	An ability to design solutions for Civil Engineering problems and design system components	36%	7%	3%	3%	23%	72%
PO4	An ability to conduct experiments, analyse and interpret data to provide valid conclusions.	42%	8%	4%	3%	24%	81%
PO5	An ability to apply appropriate techniques and use modern engineering tools to Civil Engineering systems	36%	7%	4%	4%	24%	75%
PO6	An ability to assess safety and legal issues and the consequent responsibilities relevant to the professional Civil Engineering practice.	42%	7%	3%	3%	22%	76%
PO7	An ability to understand the impact of the professional Civil Engineering solutions in relations to societal needs, environmental concerns and sustainable development.	36%	7%	2%	4%	24%	73%

After this session, Mock team is formed to evaluate Computer Science and Mechanical Department

Afternoon : Mock visits to Departments &Campus)

Incharge

MECH(Prof Shoukath ali)

CSE(Prof Dr Sasikumaran.S)

Campus (Prof Dr Sukesh kumar)

At the end, Strength and weakness of each department and Campus is discussed.

Feed back; Concluding Sessions

Feedback from the participants are collected and Some of the participants gave feedback of the programme. The certificates are distributed to all participants in the concluding sessions.