



Department of Mechanical Engineering

Third Board of Studies Meeting

AGENDA

Date : 29.07.2020

Time : 02.30 pm

Venue : VIA ZOOM App

Item No.	Particulars
Item : 1.1	Curriculum and Syllabi for UG Mechanical Engineering Programme – 2nd BoS Meeting minutes and Action Plan
Item : 1.2	Curriculum and Syllabi for PG Industrial Safety Engineering Programme - 2nd BoS Meeting minutes and Action Plan
Item : 1.3	Curriculum and Syllabi for UG & PG Programme - 3rd BoS Meeting Minutes



III – Board of Studies (BoS) Meeting Minutes

Item 1.3: Curriculum and Syllabi for UG & PG Programme													
Sl.No	Minutes - Comments												
	The Prerequisite of the following courses should include.												
	<table border="1"> <thead> <tr> <th>Courses</th> <th>Prerequisite to Added</th> </tr> </thead> <tbody> <tr> <td>Power Plant Engineering</td> <td>Thermal Engineering</td> </tr> <tr> <td>Design for Manufacturing and Assembly</td> <td>Design</td> </tr> <tr> <td>Flexible manufacturing systems</td> <td>CAD</td> </tr> <tr> <td>Computational Fluid Dynamics</td> <td>Fluid Mechanics</td> </tr> <tr> <td>Computer Integrated Manufacturing</td> <td>CAD</td> </tr> </tbody> </table>	Courses	Prerequisite to Added	Power Plant Engineering	Thermal Engineering	Design for Manufacturing and Assembly	Design	Flexible manufacturing systems	CAD	Computational Fluid Dynamics	Fluid Mechanics	Computer Integrated Manufacturing	CAD
Courses	Prerequisite to Added												
Power Plant Engineering	Thermal Engineering												
Design for Manufacturing and Assembly	Design												
Flexible manufacturing systems	CAD												
Computational Fluid Dynamics	Fluid Mechanics												
Computer Integrated Manufacturing	CAD												
1.													
2.	It was advised to include the recent software Caesar-2 in unit 5 of “ Design of Pressure Vessels & Piping ”.												
3.	It was advised to change the title of the course “ Industrial Automation 4.0 ” as “ Industrial 4.0 ” and to include mechanical applications also in the syllabus.												
4.	The Professional electives assigned for each semester has to be grouped under the four area of specialization (Design and Analysis Stream, Manufacturing and Materials Stream, Thermal and Fluid Stream and Industry Automation and Management) so that it will be convenient for the students to choose electives in the area of his interested.												
5.	It was advised to keep the two elective courses – “ Entrepreneurship Development ” and “ Total Quality Management ” in open and professional electives.												
6.	The following elective courses such as “ Data analytics ”, “ Block Chain ” and “ Cyber Security ” may be given as open elective to the students.												
7.	“ Summer Internship ” of minimum four week duration may be included during the fifth semester.												
8.	The professional electives “ Refrigeration and Air -conditioning ” has to be shifted from final semester to earlier semester.												
9.	There is overlapping of course content of syllabus “ Lean Manufacturing and Total Quality Manufacturing ”.												



Department of Mechanical Engineering

10.	The mapping of “ Technical Seminar ” is not proper. The CO ₁ strongly maps with PO ₆
11.	The course outcome of “ Comprehension ” is too specific. It must be general in nature.
12.	The course outcome of the main “ Project work ” is design oriented only but not research oriented.

Minutes of the Third Board of Studies Meeting

The Third Board of Studies Meeting of the Department of Mechanical Engineering was convened by **Dr.S.JOE PATRICK GNANARAJ**, Professor and Head/Mechanical Engineering of Francis Xavier Engineering College on 29th July, 2020 at 2:30 pm.

External Members Present:

Sl. No.	Members as per UGC Norms	Members Nominated	Signature
1	Head of the Department concerned (Chairman)	Dr.S.Joe Patrick Gnanaraj Professor and Head Department of Mechanical Engineering Francis Xavier Engineering College Tirunelveli	
2	One Expert nominated by the Vice Chancellor from a panel of six recommended by the college Principal	Dr.A.Krishnaveni Associate Professor, Department of Mechanical Engineering, Government College of Engineering, Ti- runelveli	
3	Experts in the subject from outside the college nominated by the Academic Council	Dr.V.Senthil Kumar, Associate Professor, Department of Production Engineering, NIT, Tiruchirapalli, TamilNadu	
4	One representative from industry/corporate sector/allied area relating to placement	Mr.R.SrinivasaRaghavan AVP, Manufacturing, Alliance Tire Group, Tirunelveli.	
5	One Post Graduate meritorious aluminous nominated by the Principal	Mr.A.Arul Marcel Moshi Assistant Professor, Department of Mechanical Engineering, National Engineering College, Kovilpatti.	



External Members Present

Sl. No.	Members as per UGC Norms	Members Nominated	Signature
1	Head of the Department concerned (Chairman)	Dr.S.Joe Patrick Gnanaraj Professor and Head Department of Mechanical Engineering Francis Xavier Engineering College Tirunelveli	
2	One Expert nominated by the Vice Chancellor from a panel of six recommended by the college Principal	Dr.A.Krishnaveni Associate Professor, Department of Mechanical Engineering, Government College of Engineering, Ti- runelveli	
3	Experts in the subject from outside the college nominated by the Academic Council	Dr.V.Senthil Kumar, Associate Professor, Department of Production Engineering, NIT, Tiruchirapalli, TamilNadu	
4	One representative from industry/corporate sector/allied area relating to placement	Mr.R.SrinivasaRaghavan AVP, Manufacturing, Alliance Tire Group, Tirunelveli.	
5	One Post Graduate meritorious aluminous nominated by the Principal	Mr.A.Arul Marcel Moshi Assistant Professor, Department of Mechanical Engineering, National Engineering College, Kovilpatti.	



II - Board of Studies (BoS) Meeting Minutes and Action Plan

Item 1.1: Curriculum and Syllabi for UG Mechanical Engineering Programme		
Sl. No.	Minutes - Comments	Action Plan
1	POs can be slightly modified to ensure department specific objectives.	The POs are modified to suit the specific objectives of the department.
2	The total hours of the subject for layer learning courses has to be increased to 75 periods from 60 periods.	Number of hours increased from 60 to 75
3	Dynamics and Metrology lab can be merged as one laboratory course with 2 credits.	Dynamics and Metrology lab together made as one lab course instead of 2 layer learning courses
4	The title of the Computer Aided Modelling lab to be renamed as CAD / CAM laboratory	Modelling lab renamed as CAD/CAM Laboratory
5	Computer Aided Analysis lab can be renamed as CAE lab	Computer Aided Analysis lab is renamed as CAE lab
6	Elective courses on NC machines, 3D printing, Automation, Servo control etc can be included.	Computer Integrated Manufacturing, Additive Manufacturing, Industrial Automation 4.0, Mechatronics included
7	Interpersonal Skill - Essential can be renamed as an Advanced Reading and Writing course under the EEC stream.	Interpersonal Skill - Essential is renamed as Advanced Reading and Writing.
8	Tutorial hour has to be added for all analytical papers without altering the credit of the course.	Academic council members disapproved the idea of adding contact hour without changing the credit. Retained as 3 credits
9	The link for various online courses needs to be included in the list of Online courses.	The links for various online courses are included.
10	The Electives can be categorized as groups with each group comprising of courses from all major streams of Mechanical Engineering.	Stream wise Categorization made



II - Board of Studies (BoS) Meeting Minutes and Action Plan

Item 1.1: Curriculum and Syllabi for UG Mechanical Engineering Programme		
Sl. No	Minutes - Comments	Action Plan
11	The courses listed under Open Elective for the concerned semester can be listed as a single list.	The complete list of all electives offered by all the departments will be enlisted in fxcams.
12	The word in the first CO "Express" needs to be replaced with "select" in Finite Element Analysis.	CO redefined with term select
13	The course outcome of Dynamics of Machines (CO 5) can be rewritten as "carryout the Performance characteristics of the governor".	Course outcome redefined
14	Two degrees of freedom to be added in the course of Dynamics of Machines under unit IV.	Topic added
15	CO - PO mapping needs to be better indicated by three levels - High , Medium, and Low.	The level or degree of mapping indicated as 3,2,1 as per NBA requirement in the place of H, M, L
16	Unit III in Metrology and Measurement can be moved as Unit V	The changes has been made
17	The course outcomes of Design of Machine Elements comprise more of Apply term and can be redefined.	Course outcome redefined.
18	Text books and Reference books need to be upgraded from V semester.	Latest editions and or reprints added for all courses
19	Web sources can be added for the entire courses.	Web sources added for all courses
20	More Industry based Electives can be included in the elective list	Industrial Robotics, Industrial Automation 4.0, Industrial Tribology, Polymer Technology added
21	The third and fourth unit in Engineering Thermodynamics can be moved to Thermal Engineering as second unit with Psychrometry as fifth unit in Thermodynamics and Refrigeration and Air conditioning systems as fifth unit in thermal engineering	Changes made in Thermodynamics and Thermal Engineering



II - Board of Studies (BoS) Meeting Minutes and Action Plan

Item 1.2: Curriculum and Syllabi for PG Industrial Safety Engineering Programme		
Sl. No	Minutes - Comments	Action plan
1	The PSOs and POs need to be redefined for Industrial Engineering	PSO and PO redefined program specific
2	The thrust areas like Block Chain, Cyber Security can be added in elective list.	Block Chain and Cyber Security offered by other departments with the approval of the board chairman
3	SPSS can be included in Probability and Statistical Methods course.	SPSS is included in Probability and Statistical Methods and Research Methodology courses.
4	The course on Research Methodology can be refined with the contents available in Research Methodology course offered by the Faculty of Technology, University Departments	The content of research methodology course is redefined as it is offered in university department.
5	The content for the Professional Elective such as Plant Layout and Materials Handling, Work study and Ergonomics and Maintainability Engineering has to be referred from CEG, University Departments.	The content for the Professional Electives such as Plant Layout and Materials Handling, Work study design and Ergonomics and Maintenance engineering and management are modified referring university technology department from CEG, University department.
4	The course on Research Methodology can be refined with the contents available in Research Methodology course offered by the Faculty of Technology, University Departments	The content of research methodology course is redefined as it is offered in university department.
6	Optimization Techniques needs to be included in the elective list.	The Optimization Techniques is included in the elective list.
7	Online web resources should be included in the references.	Online web resources are also included as reference.



Department of Mechanical Engineering

The screenshot shows a Zoom meeting interface with several participants at the top. The main content is a PowerPoint slide titled "II BOARD OF STUDIES - MINUTES AND ACTION PLAN". The slide displays a table with the following data:

Item 1.2: Curriculum and Syllabi for PG Industrial Safety Engineering Programme			
Item No	Minutes - Comments	Action plan	Ref.
1	The PSOs and POs need to be redefined for Industrial Engineering	PSO and PO redefined program specific	4
2	The thrust areas like Block Chain, Cyber Security can be added in elective list.	Block Chain and Cyber Security offered by other departments with the approval of the board chairman	-
3	SPSS can be included in Probability and Statistical Methods course.	SPSS is included in Probability and Statistical Methods and Research Methodology courses.	10, 74

Dr.S.Joe Patrick Gnanaraj
Board Chairman



FRANCIS XAVIER ENGINEERING COLLEGE

AN AUTONOMOUS INSTITUTION

Accredited BY NBA | AICTE Sponsored Margdarshan Mentor Institution
 DST-FIST Supported Institution | ISO 9001:2015 Certified
 Recognized under Section 2(f) & 12(B) of the UGC Act, 1950

[f /fxengg](#)
[t /fxengg](#)
[i /fx_ec](#)
[in /fxengg](#)
[y /francisxavierengineeringcollege](#)

Department of Mechanical Engineering

Zoom Meeting

Recording... Speaker View

S.Joe Patrick Gn...	J.Jeremy Jeba S...	Sheik sulaiman S	Arul Marcel Mo...	KRISHNAVENI A
V Senthilkumar	Dr. R.Samuel Ha...	G.Vairamani	K. Robinston Je...	Z F
LBENEZER SATHI...	Saravana Kumar	Ariyanayagam K...	SATHISH KUMAR	Dr.L.R. Priya
Velmurugan V	ARTHUR JEBARAJ	Prabaharan R	Dr. I. Neethi Man...	AYYANAR RAJA M
Manly Rajakumar	Thanumalaya Per...	Siva Subramani...	Ramkumar P	MUTHU KUMAR

Participants (26)

Find a participant

- J.Jeremy Jeba Sa... (Host, me)
- S.Joe Patrick Gnanaraj (Co-host)
- Z F (Co-host)
- KRISHNAVENI A
- Ariyanayagam Kumarasamy
- ARTHUR JEBARAJ
- Arul Marcel Moshi A
- AYYANAR RAJA M
- Dr. I. Neethi Manickam
- Dr. R.Samuel Hansen
- Dr.L.R. Priya
- EBENEZER SATHISH PAUL
- K. Robinston Jeyasingh
- K.S. MAHESWARI

Unmute Start Video Security Participants Polls Chat Share Screen Reactions More End

Type here to search

15:39 29-07-2020

Dr.S.Joe Patrick Gnanaraj
Board Chairman



FRANCIS XAVIER ENGINEERING COLLEGE

AN AUTONOMOUS INSTITUTION

Accredited BY NBA | AICTE Sponsored Margdarshan Mentor Institution
 DST-FIST Supported Institution | ISO 9001:2015 Certified
 Recognized under Section 2(f) & 12(B) of the UGC Act, 1950

f /fxengg t /fxengg i /fx_ec in /fxengg
 y /francisxavierengineeringcollege

Department of Mechanical Engineering

Zoom Meeting

Recording... Speaker View

Ask to Unmute

Arul Marcel Mo...	J.Jeremy Jeba S...	KRISHNAVENI A	V Senthilkumar	Dr.L.R. Priya
Velmurugan V	S.Joe Patrick Gn...	Dr. R.Samuel Ha...	G.Vairamani	ARTHUR JEBARAJ
Sheik sulaiman S	K. Robinston Je...	Prabaharan R	Dr. I. Neethi Man...	AYANAR RAJA M
Z F	EBENEZER SATHI...	Manly Rajakumar	Saravana Kumar	Thanumalaya Per...
Ramkumar P	Siva Subramani...	Ariyanayagam K...	MUTHU KUMAR	

Participants (24)

Find a participant

- J.Jeremy Jeba Sa... (Host, me)
- S.Joe Patrick Gnanaraj (Co-host)
- Z F (Co-host)
- V Senthilkumar
- Ariyanayagam Kumarasamy
- ARTHUR JEBARAJ
- Arul Marcel Moshi A
- AYANAR RAJA M
- Dr. I. Neethi Manickam
- Dr. R.Samuel Hansen
- Dr.L.R. Priya
- EBENEZER SATHISH PAUL
- K. Robinston Jeyasingh
- KRISHNAVENI A

Unmute Start Video Security Participants Polls Chat Share Screen Reactions More End

Type here to search

15:15 29-07-2020

Dr.S.Joe Patrick Gnanaraj
 Board Chairman



FRANCIS XAVIER ENGINEERING COLLEGE

AN AUTONOMOUS INSTITUTION

Accredited BY NBA | AICTE Sponsored Margdarshan Mentor Institution
DST-FIST Supported Institution | ISO 9001:2015 Certified
Recognized under Section 2(f) & 12(B) of the UGC Act, 1950

[f/fxengg](#) [t/fxengg](#) [i/fx_ec](#) [in/fxengg](#)
[y/francisxavierengineeringcollege](#)

Department of Mechanical Engineering

Registration Time	Status	Faculty Name with Initial	Designation	Name of the Organization associated with:	BOS Member Category
7/29/2020 14:57	approved	Dr.Rajakumar	Professor	Francis Xavier Engineering College, Tirunelveli	Controller of Examination
7/29/2020 14:33	approved	Dr.V.Senthil Kumar	Associate Professor	National Institute of Technology, Tiruchirapalli	Other University Representative
7/29/2020 15:01	approved	Dr.L.R.Priya	Associate Professor	Francis Xavier Engineering College, Tirunelveli	Academics - Dean
7/29/2020 15:22	approved	Mrs.K.S.Maheswari	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:40	approved	Mr.M.Ayyanar Raja	Associate Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:55	approved	Mr.K.Ariyanayagam	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:35	approved	Mr.K.Robinston	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:49	approved	Mr.R.Prabakaran	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:52	approved	Mr.S.Sheik Sulaiman	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:46	approved	Dr.S.Joe Patrick Gnanaraj	Professor	Francis Xavier Engineering College, Tirunelveli	Board Chairman / HOD
7/29/2020 14:42	approved	Mr.J.Y.Arthur Jebaraj	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 13:57	approved	Dr.Zeenathul Farida Abdul Gani	Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 15:02	approved	Dr.A.Krishnaveni	Professor	Government College of Engineering, Tirunelveli	Parent University Representative
7/29/2020 14:59	approved	Mr.R.SrinivasaRaghavan	Industry Expert	Alliance Tire Group, Tirunelveli	Industry Expert Representative
7/29/2020 14:30	approved	Mr.G.Vairamani	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:32	approved	Dr.R.Samuel Hansen	Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 15:01	approved	Mr.J.Jeremy Jeba Samuel	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:39	approved	Mr.P.Sathish Kumar	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 15:17	approved	Mr.K.Robinston	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 15:01	approved	Mr.S.Thanumalaya Perumal	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:30	approved	Mr.M.Muthukumar	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:59	approved	Mr.M.Saravanakumar	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:50	approved	Mr.Siva Subramanian	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:58	approved	Mr.P.Ebenezer Sathish Paul	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:53	approved	Dr.I.Neethi Manickam	Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:58	approved	Mr.Ram Kumar	Assistant Professor	Francis Xavier Engineering College, Tirunelveli	Internal Faculty Member
7/29/2020 14:30	approved	Dr,V.Velmurugan	Professor	Francis Xavier Engineering College, Tirunelveli	Principal - FXEC
7/29/2020 14:58	approved	Mr.A.Arul Marcel Moshi	Assistant Professor	National Engineering College, Kovilpatti	Alumni Expert Representative


Dr.S.Joe Patrick Gnanaraj -Board Chairman