

Department of Mechanical Engineering

MINUTES of 16<sup>th</sup> Meeting of the Board of Studies held on  
27<sup>th</sup> November, 2021 at 10.00 a.m. (Online mode)  
Google meet Link: [meet.google.com/owz-ummz-mde](https://meet.google.com/owz-ummz-mde)

Venue: Seminar Hall, Department of Mechanical Engineering,  
National Engineering College

**National Engineering College, K.R.Nagar, Kovilpatti – 628 503**  
(An Autonomous Institution - Affiliated to Anna University, Chennai)  
[www.nec.edu.in](http://www.nec.edu.in)

# National Engineering College, K.R.Nagar, Kovilpatti - 628503

(An Autonomous Institution -Affiliated to Anna University, Chennai)

## 16<sup>th</sup> Board of Studies Meeting - Mechanical Engineering

Venue: Seminar Hall, Department of Mechanical Engineering,  
National Engineering College

Date & Time: 27.11.2021 & 10.00 a.m.

Online Google Meet Link: [meet.google.com/owz-ummz-mde](https://meet.google.com/owz-ummz-mde)

### AGENDA

BoS / MECH16.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the department of Mechanical Engineering
BoS / MECH16.2	:	Confirmation of the Minutes of the 15 <sup>th</sup> meeting of Board of Studies in the department of Mechanical Engineering held on June 26, 2021 and Action taken report of 15 <sup>th</sup> meeting of Board of Studies
BoS / MECH16.3	:	Business brought forward by the Chairman, Board of studies
	16.3.1	Introduction of Specialization courses, Conduct of Examination - ODD semester 2021-2022 for UG and PG Programmes and Examination Reforms
	16.3.2	Syllabus for Robotics Specialization courses - B.E. Mechanical Engineering Programme under Regulation 2019
	16.3.3	Syllabus for "Product Life Cycle Management" and revision of "Product Development Laboratory" as an integrated course - B.E. Mechanical Engineering Programme under Regulation 2019.
	16.3.4	Credit transfer for open online courses other than NPTEL (like Udemy, Coursera etc.,) for UG and PG programmes under Regulation 2019.
BoS / MECH16.4	:	Suggestions given by the BOS Members
BoS / MECH16.5	:	Any other items

**National Engineering College, K.R.Nagar, Kovilpatti – 628 503**  
(An Autonomous Institution - Affiliated to Anna University, Chennai)

F. No. 1-1/NEC/MECH

27<sup>th</sup> November, 2021

Dear Sir/Madam,

**Sub: Minutes of the 16<sup>th</sup> Meeting of the Board of studies in the Mechanical Engineering - Reg.**

Kindly find attached herewith the Minutes of the 16<sup>th</sup> Meeting of Board of studies of the Mechanical Engineering of the National Engineering College, K.R.Nagar, Kovilpatti – 628503 held on 27<sup>th</sup> November 2021 at 10.00 a.m. (Online mode) in Seminar Hall, Department of Mechanical Engineering, National Engineering college. Hard copy of the Minutes is also being sent to you by speed post.

It is requested that comments on the Minutes, if any, may please be sent by email at [hodmech@nec.edu.in](mailto:hodmech@nec.edu.in) or by post, at the earliest. If no comments are received, within ten days, the Minutes shall be taken as confirmed. With Kind Regards,

Yours Sincerely,

*h.u-82*  
27/11/21  
(Dr.K.Manisekar)

## Department of Mechanical Engineering

### MINUTES OF THE MEETING

The 16<sup>th</sup> Meeting of the Board of studies of the Mechanical Engineering was held on 27<sup>th</sup> November 2021 at 10.00 a.m. (Online mode - Google Meet Link: [meet.google.com/owz-ummz-mde](https://meet.google.com/owz-ummz-mde)) in the Seminar Hall, Department of Mechanical Engineering, National Engineering College, K.R.Nagar, Kovilpatti – 628 503

1. The following members were present

1.	Dr. K.Manisekar, Professor & Head	Chairman
2.	Dr. S.Iyah Raja, Asso. Professor	Internal Members
3.	Dr. D.Venkat Kumar, Asso. Professor	
4.	Dr. M.Kathiresan, Asso. Professor	
5.	Dr. R.Harichandran, Asso. Professor	
6.	Dr. I.Sankar, Asst.Professor (S.G)	
7.	Dr. D.Vignesh Kumar, Asst. Prof. (S.G)	
8.	Dr. P.Ramanan, Asst. Professor (S.G)	
9.	Dr. F.Michael Thomas Rex, Asst. Prof. (S.G)	
10.	Mr. B.Prince Abraham, Asst. Professor	
11.	Mr. S.R.Sundara Bharathi, Asst. Professor	
12.	Mr. P.Samuel Ponraj, Asst. Professor	
13.	Mr. A.Andrews, Asst. Professor	
14.	Dr. P.Hariharasakthisudhan, Asst. Prof. (S.G)	
15.	Mr. K.Thoufiq Mohammed, Asst. Professor	
16.	Mr. M.Vivekanandan, Adjunct Faculty	
17.	Mr. C.Suresh Kumar, Asst. Professor	
18.	Mr. C.Veera Ajay, Asst. Professor	
19.	Dr. W.Beno Wincy, Asst. Professor	
20.	Dr. N.Karthikeyan, Asst. Professor	
21.	Dr. G.Kumaresan Deputy Director (Research) & Associate Professor Institute for Energy Studies, CEG, Anna University, Chennai	

22.	Dr.-Ing. M. Duraiselvam Professor / Production Engineering, National Institute of Technology, Trichy	
23.	Dr.A.Arockiarajan Professor / Applied Mechanics, Indian Institute of Technology, Chennai	
24.	Dr. K. Murugan Scientist -E, Centre for Sol-Gel coatings, ARCI, Hyderabad - 500 005, Telangana	Meritorious Alumnus Nominated by the Principal
25.	Mr. R. Kanda Subburaj Chief Engineer, Project Controls, AMEC Foster Wheeler India Pvt. Ltd, Chennai	Industrial Experts
26.	Mr. P. Muniyandi, Principal Scientific Officer, Controller of Quality Assurance, Bharat Earth Movers Ltd., New Thippasandra, Bangaluru - 56007	
27.	Mr. P. Sriram, Joint Executive President, Ultratech in Aditya Birla Group, Pune, Maharastra.	
28.	Mr. Sivaram Sundaram, Senior Director, Comcast India Engineering Centre, Thoraipakkam, Chennai - 97	
29.	Mr. J. Sam Joebin, IV Year Student	Student Members
30.	Mr. X.Cheselton, IV Year Student	

2. The following University Nominee Dr.D.Mohanlal, Professor, Department of Mechanical Engineering, Anna University, Chennai member could not attend the meeting due to his prior commitments and unavoidable reasons and he was granted leave of absence.

BoS / MECH16.1	:	WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF MECHANICAL ENGINEERING
----------------	---	---

		<p>The Chairman, BOS of the Mechanical Engineering welcomed and introduced the members of 16<sup>th</sup> Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.</p>
BoS / MECH 16.2	:	<p><b>TO CONFIRM THE MINUTES OF FIFTEENTH BOS MEETING HELD ON 26<sup>th</sup> June, 2021</b></p>
		<p>The minutes of the <b>Fifteenth Board of Studies meeting</b> held on 26<sup>th</sup> June, 2021 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 15<sup>th</sup> Academic council. (Enclosed in Annexure – I)</p>
BoS / MECH 16.3.1	:	<p><b>TO CONFIRM AND APPROVE</b> the introduction of Specialization courses, Conduct of Examination - ODD semester 2021-2022 for UG and PG Programmes and Examination Reforms. (Enclosed in Annexure – II)</p>
		<p><b>RESOLVED TO APPROVE</b> the introduction of Specialization courses, Conduct of Examination - ODD semester 2021-2022 for UG and PG Programmes and Examination Reforms.</p>
BoS / MECH 16.3.2	:	<p><b>TO CONFIRM AND APPROVE</b> the syllabus for Robotics Specialization courses – B.E. Mechanical Engineering Programme under Regulation 2019. (Enclosed in Annexure – III)</p>
		<p><b>RESOLVED TO APPROVE</b> the syllabus for Robotics Specialization courses – B.E. Mechanical Engineering Programme under Regulation 2019.</p>
BoS / MECH 16.3.3	:	<p><b>TO CONFIRM AND APPROVE</b> the Syllabus for “Product Life Cycle Management” and revision of “Product Development Laboratory” as an integrated course – B.E. Mechanical Engineering Programme under Regulation 2019. (Enclosed in Annexure – IV)</p>

	<b>RESOLVED TO APPROVE</b> the Syllabus for “Product Life Cycle Management” and revision of “Product Development Laboratory” as an integrated course – B.E. Mechanical Engineering Programme under Regulation 2019.
BoS / MECH 16.3.4 :	<b>TO CONFIRM AND APPROVE</b> Credit transfer for open online courses other than NPTEL (like Udemy, Coursera etc.,) for UG and PG programmes under Regulation 2019.
	<b>RESOLVED TO APPROVE</b> Credit transfer for open online courses other than NPTEL (like Udemy, Coursera etc.,) for UG and PG programmes under Regulation 2019.
BoS / MECH 16.4 :	<b>Suggestions Given by the Members</b>
16.4.1 :	“19ME42E - Operations and Production Management” programme elective course title may be changed as “Production and Operations Management”
16.4.2 :	Safety standards for working in Heights, lifting heavy materials, confined spaces, Heavy voltage area can be included in “19ME48E - Industrial Safety Engineering” programme elective course.
16.4.3 :	Appreciated the initiation of Introducing Specialization courses and hybrid mode of conduct of examination and Examination reforms.
16.4.4 :	Drones and Automated Guided Vehicle (AGV) topics may be added in the “Introduction to robotics” open elective course.
16.4.5 :	The robotic specialization course may be taught effectively by using a Mini robot and robot simulation software.
16.4.6 :	Stages of PLM, Marketing techniques related PLM, financial aspects of PLM, case studies with specific applications. Application Lifecycle Management (ALM) topics may be included in “Product Lifecycle Management” open elective course.
16.4.7 :	The concept of prototyping may be elaborated in “Product Development Laboratory” integrated course.

16.4.8	: Credit transfer of open online courses other than NPTEL (like Udemy, Coursera etc.,) a) Students can register the courses from the open online forum (like Udemy, Coursera etc.,) with prior guidelines given by the Dean Academic with the approval of Head of the department. b) For internal marks, continuous assessments can be considered which is conducted by the Udemy, Coursera etc., c) For external marks, external assessment can be conducted as a separate exam for the selected courses. Before conducting the exam, it is to be ensure that the question setting faculty should be familiarized on the particular course.
--------	---

The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the curriculum and syllabus of Regulation 2019.

Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.

- a. Introduction of Specialization courses, Conduct of Examination - ODD semester 2021-2022 for UG and PG Programmes and Examination Reforms.
- b. Syllabus for Robotics Specialization courses – B.E. Mechanical Engineering Programme under Regulation 2019.
- c. Syllabus for “Product Lifecycle Management” and revision of “Product Development Laboratory” as an integrated course – B.E. Mechanical Engineering Programme under Regulation 2019.
- d. Credit transfer for open online courses other than NPTEL (like Udemy, Coursera etc.,) for UG and PG programmes under Regulation 2019.

Dr.R.Harichandran, Associate Professor / Mechanical Engineering thanked all the members for their kind cooperation and the meeting came to an end.

### Members Present Online

<b>Dr. G.Kumaresan</b> Deputy Director (Research) & Associate Professor Institute for Energy Studies, CEG, Anna University, Chennai	<i>Academic Experts</i>
<b>Dr.-Ing. M. Duraiselvam</b> Professor / Production Engineering, National Institute of Technology, Trichy	
<b>Dr.A.Arockiarajan</b> Professor / Applied Mechanics, Indian Institute of Technology, Chennai	
<b>Dr. K. Murugan,</b> Scientist –E, Centre for Sol-Gel Coatings, ARCI, Hyderabad – 500 005, Telangana	<i>Meritorious Alumnus</i>
<b>Mr. R. Kanda Subburaj</b> Chief Engineer, Project Controls, AMEC Foster Wheeler India Pvt. Ltd, Chennai	<i>Industrial Experts</i>
<b>Mr. P. Muniyandi,</b> Principal Scientific Officer, Controller of Quality Assurance, Bharat Earth Movers Ltd., New Thippasandra, Bangaluru - 56007	
<b>Mr. P. Sriram,</b> Joint Executive President, Ultratech in Aditya Birla Group, Chennai.	
<b>Mr. Sivaram Sundaram,</b> Senior Director, Comcast India Engineering Centre, Thoraipakkam, Chennai - 97	

### Members Present

<b>Chairman</b>	
Dr.K.Manisekar, Professor & Head	<i>h.u-02</i>
<b>Internal Members</b>	
Dr.S.Iyah Raja, Asso. Professor	<i>[Signature]</i>
Dr.D.Venkat Kumar, Asso. Professor	<i>[Signature]</i>
Dr. M.Kathiresan, Asso. Professor	<i>[Signature]</i>

Dr. R.Harichandran, Asso. Professor	R. H. [Signature]
Dr.I. Sankar, Asst.Professor (S.G)	[Signature]
Dr.D. Vignesh Kumar, Asst. Prof. (S.G)	D. Vignesh Kumar [Signature]
Dr.P.Ramanan, Asst. Professor (S.G)	P.Ram. [Signature]
Dr.F.Michael Thomas Rex, Asst. Prof. (S.G)	[Signature]
Mr.B.Prince Abraham, Asst. Professor	B. Prince [Signature]
Mr. S.R.Sundara Bharathi, Asst. Professor	[Signature]
Mr. P.Samuel Ponraj, Asst. Professor	[Signature]
Mr. A.Andrews, Asst. Professor	[Signature]
Dr. P. Hariharasakthisudhan, Asst. Prof. (S.G)	P. Hariharasakthisudhan [Signature]
Mr. K. Thoufiq Mohammed, Asst. Professor	[Signature]
Mr. M.Vivekanandan, Adjunct Faculty	online
Mr. C.Suresh Kumar, Asst. Professor	[Signature]
Mr. C.Veera Ajay, Asst. Professor	[Signature]
Dr. W. Beno Wincy, Asst. Professor	[Signature]
Dr. N. Karthikeyan, Asst. Professor	[Signature]
<b>Student Members Nominated by the HOD</b>	
Mr. J. Sam Joebin, IV Year Student	online
Mr. X.Cheselton, IV Year Student	online

h.u - 82  
27/11/21  
CHAIRMAN  
BOARD OF STUDIES

# 16<sup>th</sup> BOARD OF STUDIES MEETING – DEPARTMENT OF MECHANICAL ENGINEERING ON 27.11.2021

## 16th BoS Meeting - Dept. of Mechanical Engineering- NEC Kovilpatti (2021-11-26 at 20:34 GMT-8)

The screenshot displays a Google Meet interface. At the top, the browser address bar shows the meeting URL: `meet.google.com/owz-umtz-mde?pli=1&authuser=0`. The meeting controls bar includes a red 'REC' button, a 'You're presenting to everyone' indicator, and a 'Stop presenting' button. The main content area shows a presentation slide with a 'Stop presenting' button and a warning: 'To avoid an infinity mirror, don't share your entire screen or browser window. Share just a tab or a different window instead.' A 'People' panel on the right lists participants: Kandasubburaj Ramiah, Karuppiah Murugan, Pachamal Muniyandi, Sivaram Sundaram, SRI PAN-SUN, and vigneshkumar mech. A video thumbnail of Kandasubburaj Ramiah is visible on the right. The Windows taskbar at the bottom shows the time as 10:58 AM on 11/27/2021.

10:58 AM | 16th BoS Meeting - Dept. of Mechanic...  
28°C Rain showers 10:58 AM 11/27/2021

42:08 / 1:16:36

# 16th BoS Meeting - Dept. of Mechanical Engineering- NEC Kovilpatti (2021-11-26 at 20:34 GMT-8)

The image is a screenshot of a Google Meet video recording. At the top, a browser window shows the URL `meet.google.com/owz-ummz-mde?pli=1&authuser=0`. The meeting interface includes a 'REC' button, a 'You're presenting to everyone' notification, and a 'Stop presenting' button. The main video feed shows a man with a beard and glasses, identified as Sivaram Sundaram. To the right is a gallery of other participants, including Kandasubburaj Ramiah, Pachamuni..., SRI PAN-SUN, Arockiarajan A..., Durai selvam, DD Research, and 5 others. A Windows taskbar is visible at the bottom, showing the time as 11:25 AM on 11/27/2021. A red progress bar at the bottom indicates the video is at 1:08:21 / 1:16:36. An 'Activate Windows' watermark is present in the bottom right corner.