

## Department of Information Technology

**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)

### 16<sup>th</sup> Board of studies Meeting in the Department of **Information Technology**

Meeting Mode: Through online (GoogleMeet)

Google Meet Link: [meet.google.com/iip-xxdf-ird](https://meet.google.com/iip-xxdf-ird)

Date & Time: 25.11.2021 & 03.30 p.m.

#### Agenda

BoS / IT 16.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the department of Information Technology
BoS / IT 16.2	:	Confirmation of the Minutes of the 15 <sup>th</sup> meeting of Board of studies in the department of Information Technology held on 23 <sup>rd</sup> JUNE 2021 and Action taken report of 15 <sup>th</sup> meeting of Board of studies
BoS / IT 16.3	:	Business brought forward by the Chairman, Board of studies 16.3.1 Curriculum Restructuring of R2019 16.3.2 Syllabus Reformation of R2019 16.3.3 Specialization course to be offered in UG degree programme under R-2019 – Data Science 16.3.4 Credit Transfer for other online courses like udemy, coursera etc., and norms for credit transfer 16.3.5 End Semester Examination - Reforms
BoS / IT 16.4	:	Any other items
BoS / IT 16.5	:	Suggestions given by the BoS Members

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F. No. 16.1/NEC/ IT/2020-21

25<sup>th</sup> Nov, 2021

Dear Sir/Madam,

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

Kindly find attached herewith the Minutes of the 16<sup>th</sup> Meeting of Board of studies of the Information Technology of National Engineering College, K.R.Nagar, Kovilpatti – 628503 held on 25<sup>th</sup> Nov, 2021 at 03.30 PM through Google Meet. 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 [hodit@nec.edu.in](mailto:hodit@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

(Dr.K.G.Srinivasagan)

Department of Information Technology

MINUTES of 16<sup>th</sup> Meeting of the Board of studies held on  
25<sup>th</sup> Nov, 2021 at 03.30 PM

Meeting Mode: Through online (GoogleMeet)

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**MINUTES OF THE MEETING**

The 16<sup>th</sup> Meeting of the Board of studies of the Information Technology was held on 25<sup>th</sup> Nov 2021 at 03.30 PM through Google Meet.

1. The following members were present:

1.	Dr.K.G.Srinivasagan	Chairman
2.	Dr.R.Muthukkumar, Asso. Prof.	Internal Members
3.	Dr.S.Chidambaram, Asst. Prof. (SG)	
4.	Dr.S.Rajagopal, Asst. Prof. (SG)	
5.	Dr.V.Jackins, Asst. Prof. (SG)	
6.	Mr.G.Pandiyarajan, Asst. Prof.	
7.	Ms.V.Anitha, Asst. Prof.	
8.	Ms.S.Santhi, Asst. Prof.	
9.	Dr.S.Swamynathan, Professor, Department of Information Science &Technology, Anna University, Chennai.	University Nominee
10.	Dr.P.Yogesh, Professor, Department of Information Science &Technology, Anna University, Chennai.	Academic/Alumni Expert
11.	Dr. Shajulin Benedict, Assistant Professor, Department of Computer Science and Engineering, IIT - Kottayam.	Special Invitee
12.	Dr. Debasis Samanta, Associate Professor Department of Computer Science & Engineering, IIT - Kharagpur.	Special Invitee
13.	Mr.Antony Arravindh, Senior Project Manager, HCL Technologies, Chennai.	Alumni/Industrial Expert
14.	Dr.K.M.Suceendran, General Manager, Tata Consultancy Services, Chennai.	Industrial Expert
15.	Anandh.A, Third year	Student Members
16.	Anto Rosario.S, Third year	

BoS / IT 16.1	:	WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF INFORMATION TECHNOLOGY
		The Chairman, BoS of the Information Technology 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.
BoS / IT 16.2	:	TO CONFIRM THE MINUTES OF FOURTEENTH BOS MEETING HELD ON 16 <sup>th</sup> NOV, 2021.
		The minutes of the <b>Fifteenth Board of Studies meeting</b> held on 23 <sup>rd</sup> Nov, 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.  ➤ <b>Action Taken Report</b> (Enclosed in <i>Annexure D</i> )
BoS / IT 16.3.1	:	<b>TO CONFIRM AND APPROVE CURRICULUM RESTRUCTURING OF R2019</b>
		<b>RESOLVED TO APPROVE</b> curriculum restructuring of R2019
BoS / IT 16.3.2	:	<b>TO CONFIRM AND APPROVE SYLLABUS REFORMATION OF R2019</b>
		<b>RESOLVED TO APPROVE</b> syllabus Reformation of R2019
BoS / IT 16.3.3	:	<b>TO CONFIRM AND APPROVE SPECIALIZATION COURSE TO BE OFFERED IN UG DEGREE PROGRAMME UNDER R-2019 – DATA SCIENCE</b>
		<b>RESOLVED TO APPROVE</b> specialization course to be offered in UG degree programme under R-2019 – Data Science
BoS / IT 16.3.4	:	<b>TO CONFIRM AND APPROVE CREDIT TRANSFER FOR OTHER ONLINE COURSES LIKE UDEMY, COURSERA ETC., AND NORMS FOR CREDIT TRANSFER</b>
		<b>RESOLVED TO APPROVE</b> credit transfer for other online courses like udemy, coursera etc., and norms for credit

		transfer
BoS / IT 16.3.5	:	<b>TO CONFIRM AND APPROVE END SEMESTER EXAMINATION - REFORMS</b>
		<b>RESOLVED TO APPROVE</b> end semester examination - reforms
BoS / IT 16.4	:	<b>SUGGESTIONS GIVEN BY THE BOS MEMBERS</b>
16.4.1	:	<b>Business Process Management</b> – a core course may be shifted from seventh semester to sixth semester. A program elective course may be shifted from sixth semester to seventh semester
16.4.2	:	In <b>Product Development Laboratory</b> units may be refined with some specification elaborations using design thinking course. Units may be added with some software tools that help to apply design thinking concepts in product development.
16.4.3	:	Courses under <b>specialization</b> may be sequentially ordered before offering to students to ensure continuity.
16.4.4	:	In <b>Introduction to Data Science</b> course repetition of contents may be avoided under each unit. Contents related to statistical techniques may be included.
16.4.5	:	In <b>Machine Learning Techniques</b> course fundamental introduction regarding Supervised Learning, Semi-supervised Learning and Unsupervised Learning may be included. Concepts related to Classification and Clustering Techniques may be elaborated.
16.4.6	:	In <b>Data Analytics Concepts and Tools</b> course units may be organized based on one standard text book.
16.4.7	:	In <b>Business Intelligence in Data Science</b> course instead of Business Intelligence, recent areas like Data Science with IoT, Cloud Computing, Health Data Analysis, Social Media Analysis, Smart city applications may be considered.
16.4.8	:	There are more basic courses in <b>Udemy</b> and <b>Coursera</b> for which allocating mentor, monitoring and documenting the student's progress may be focused.
16.4.9	:	Hybrid mode of examination may be avoided since University is insisting to conduct examinations only through offline.
16.4.10	:	<b>Innovation through Design Thinking</b> course may be given in

	Fourth Semester for the 2020 - 2024 batch students as an one time amendment.
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The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated.

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


- a) Curriculum Restructuring of R2019
- b) Syllabus Reformation of R2019
- c) Specialization course to be offered in UG degree programme under R-2019 – Data Science
- d) Credit Transfer for other online courses like udemy, coursera etc., and norms for credit transfer
- e) End Semester Examination - Reforms

Ms.S.Santhi, Asst. Prof., thanked all the members for their kind cooperation and the meeting came to an end.

**Members Present Online:**

1.	Dr.K.G.Srinivasagan, Prof & Head ,Board Chairman	Chairman
2.	Dr.R.Muthukkumar, Asso. Prof.	Internal Members
3.	Dr.S.Chidambaram, Asst. Prof. (SG)	
4.	Dr.S.Rajagopal, Asst. Prof. (SG)	
5.	Dr.V.Jackins, Asst. Prof. (SG)	
6.	Mr.G.Pandiyarajan, Asst. Prof.	
7.	Ms.V.Anitha, Asst. Prof.	
8.	Ms.S.Santhi, Asst. Prof.	
9.	Dr.S.Swamynathan, Professor, Department of Information Science &Technology, Anna University, Chennai.	University Nominee
10.	Dr.P.Yogesh, Professor, Department of Information Science &Technology, Anna University, Chennai.	Academic Experts
11.	Dr. Shajulin Benedict, Assistant Professor, Department of Computer Science and Engineering, IIIT - Kottayam.	Special Invitee

12.	Dr. Debasis Samanta, Associate Professor Department of Computer Science & Engineering, IIT - Kharagpur.	
13.	Mr.Antony Arravindh, Senior Project Manager, HCL Technologies, Chennai.	Industrial Experts and Alumni
14.	Dr.K.M.Suceendran, General Manager, Tata Consultancy Services, Chennai.	Industrial Expert
15.	Anandh.A, Third year	Student Members
16.	Anto Rosario.S, Third year	

  
**CHAIRMAN**  
**BOARD OF STUDIES**



## ANNEXURE I

### **Actions taken for Minutes of 15<sup>th</sup> BoS Meeting**

As per BOS Committee suggestion,

- **Social and Cloud Computing** category has been renamed as '**Advanced Computing**'.
- **Block Chain Technology** subject has been moved to '**Advanced Computing**' category.
- **Digital Marketing** subject has been moved to '**Mobile Computing**' category.
- Network and security related subjects has been grouped together under a new category and named as '**Networking and Security**'.
- **Social Networking** subject has been moved to '**Advanced Computing**' category.

  
CHAIRMAN

BOARD OF STUDIES

## ANNEXURE II

The following new courses are approved to be passed under R-2019 in UG degree programme as a Specialization in Data Science Domain.

<b>Name of the Specialization: Data Science</b>						
<b>List of Courses</b>						
<b>S.No</b>	<b>Course code</b>	<b>Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
1.	19IT10N	Introduction to Data Science	3	0	0	3
2.	19IT11N	Machine learning Techniques	3	1	0	4
3.	19IT12N	Data Engineering Concepts and Tools	3	1	0	4
4.	19IT13N	Web data mining	3	1	0	4
5.	19IT14N	Business Intelligence and analytics	3	0	0	3
<b>Total Credits</b>			<b>15</b>	<b>3</b>	<b>0</b>	<b>18</b>

  
**CHAIRMAN**

**BOARD OF STUDIES**

16<sup>th</sup> BOARD OF STUDIES MEETING – DEPARTMENT OF IT ON 25.11.2021

iip-xxdf-ird (2021-11-25 at 02:07 GMT-8)

The image is a screenshot of a Google Meet recording. At the top, the title reads "iip-xxdf-ird (2021-11-25 at 02:07 GMT-8)". The browser address bar shows the URL "meet.google.com/iip-xxdf-ird?pli=1". The meeting interface includes a "REC" button, a "You're presenting to everyone" notification, and a "Stop presenting" button. The main video area shows a large conference room with several people seated around a long table. To the right, a gallery view displays several participants: "hod it", "Antony Arravi...", "Suceendran KM", "Dr.Shajulin Ben...", "Debasis Saman...", "Muthu Kumar R", and "5 others". A larger, circular profile picture of "Suceendran KM" is shown on the far right. The Windows taskbar is visible at the bottom, showing the time as 3:40 PM on 11/25/2021. An "Activate Windows" watermark is present in the bottom right corner of the recording. A video player control bar at the very bottom shows a pause icon, a volume icon, and a progress bar at 2:38 / 1:26:14.

Data Science - Syllabus - Microsoft Word

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**INTRODUCTION TO DATA SCIENCE**

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<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>

**Course Outcomes:**

Upon completion of course, students would be able to:

- CO1: explain how data are collected, managed and stored using data science (K2)
- CO2: describe various statistical and probability techniques used in the data science. (K2)
- CO3: explain the key concepts in data visualization approaches in the real-world applications. (K2).
- CO4: analyze various data analytics techniques for the dataset. (K3)
- CO5: apply various application tools used in data science. (K3)

**UNIT I INTRODUCTION 9**

Benefits and uses of data science and big data – Facets of data – The data science process: Overview-Defining goals-Retrieving data – Cleaning, integrating and transforming data – Exploratory data analysis- Build the model – The big data ecosystem and data science – An introductory working example of Hadoop.

**UNIT II STATISTICAL TECHNIQUES 9**

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Dr.Yogesh P

Activate Windows  
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