

**Nitte Meenakshi Institute of Technology  
Bangalore**

**Department of Information Science and Engineering**

**BOS Minutes of Meeting on 02/07/2014**

The BOS meeting was held in new placement cell on 02/07/2014 at 12:00 P.M. The following members attended the meeting

SI No	Committee Members	Position
1	Dr. Sanjay.H.A Prof & Head, ISE, NMIT	Chairperson
2	Dr. K. Rajnikanth Professor, Advisor(A&R) MSRIT, Bangalore	Member (Management Nominee)
3	Dr. K. Chandrasekaran Professor , CSE NITK, Suratkal	Member (VTU Nominee)
4	Mr. Sachin Kumar R.S, IT Specialist, IBM Academic Initiative, IBM India Pvt. Ltd	Member (Industry Expert Member)
5	Dr. Prasanta Gogoi, Professor, ISE, NMIT	Member
6	Mr. K. Aditya. Shastry Assoc. Prof., ISE, NMIT	Member
7	Mr. Chandrashekhar.B.N Asst. Prof, ISE, NMIT	Member Secretary
8	Mr. Rahul V Software Engineer, Convergys Bangalore	Member (Alumni)

**Agenda:**

- 1) Approval of revised I Year " Computer Concepts and C Programming" and CCP Lab for 2014 scheme
- 2) Approval of Minor changes in Higher Semester Courses if any
- 3) Verification of Outcome Based Activities

### Suggestions:

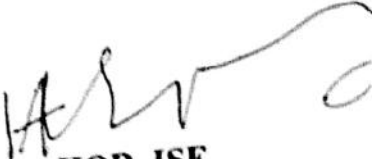
The following points were discussed in the Board of Studies (BOS) meeting held on 02-07-14:

1. It was suggested to remove MATLAB from 5<sup>th</sup> unit of CCP and add pointers concept
2. It was discussed to include CTrap text book into the CCP syllabus
3. It was suggested not to mention specific methods in ADA Lab
4. Syllabus on Cyber Laws was suggested to be reduced to 3 hours and case studies were kept
5. It was discussed not to keep Tool dependent syllabus in any subjects
6. Syllabus like C Aptitude which would help students to clear placement entrance tests were suggested
7. Courses like Analysis of Computer networks, Adhoc network, Advanced java can be included.
8. New courses C# & .Net Programming, python and information technology can be introduced.

### Resolution:

The following decisions were taken in the meeting:

1. The Matlab concept in 5<sup>th</sup> unit of Computer concepts and C programming of 1<sup>st</sup> year was removed. Instead of that pointers concept was introduced
2. C Traps and Pitfalls by Andrew Koenig is introduced as Text book for CCP subject in 1<sup>st</sup> year
3. The Course outcomes were approved
4. Adhoc network, Advanced java is introduced as elective.
5. BOE Panel has been approved

  
HOD, ISE  
(Dr. Sanjay.H.A)

**Nitte Meenakshi Institute of Technology  
Bangalore**

**Department of Information Science and Engineering**

**BOS Minutes of Meeting on 20/06/2015**

The BOS meeting was held in new placement cell on 20/06/2015 at 10.00 A.M. The following members attended the meeting

Sl No	Committee Members	Position
1	Dr. Sanjay.H.A Prof & Head, ISE, NMIT	Chairperson
2	Dr. K. Rajnikanth Ex-Principal, MSRIT, Bangalore	Member
3	Dr. K. Chandrasekaran Professor , CSE NITK, Suratkal	VTU Nominee
4	Dr. Prahlad Rao Joint Director, CDAC, Bangalore	Industry Expert Member
5	Dr. Amit Kale, Research Group Head, Imaging and Computer Vision, Siemens Corporate Research and Technology, Bangalore	Industry Expert Member
6	Mr. Arun Thakur Senior Vice President & Head InfoVision, Bangalore	Industry Expert Member
7	Dr. Prasanta Gogoi Professor, ISE, NMIT	Member
8	Mr. Karunakara Rai Assoc. Prof., ISE,NMIT	Member
9	Mrs. Vidyadevi Biradar Assoc. Prof, ISE, NMIT	Member
10	Mr. K. Aditya. Shastry Assoc. Prof., ISE, NMIT	Member
11	Mr. Rahul V Edison Engineer ,GE Global Research	Alumni
12	Mr. Rohith H.P Asst. Prof, ISE, NMIT	Member Secretary

**Special Invitees**

Dr. Jharna Majumdar, Dean R&D, NMIT

Sethunathan, Cell-Stream Technologies

**Agenda:**

- 1) Approval of scheme from III to VIII Semesters for 2014 Batch
- 2) Newly introduced subjects in comparison with 2010 scheme
- 3) Approval of detailed syllabus of III and IV Semesters for 2014 Batch
- 4) Approval of syllabus for Web technology Lab and Android Programming

**Approval of scheme from III to VIII Semesters for 2014 Batch**

**Newly introduced subjects in comparison with 2010 scheme**

Sl. No	Course Code	Course Name	Remarks
1)	14ISE563	Python for data science	Introduced as a core elective for 5 <sup>th</sup> semester
2)	14ISE564	Computer graphics with OPENGL	Introduced as a core elective for 5 <sup>th</sup> semester
3)	14IS61	Data mining	Elective has been changed as a core subject
4)	14ISE652	Internet of things	Introduced as a core elective for 6 <sup>th</sup> semester
5)	14ISO661	Internet of things	Introduced as an open elective for 6 <sup>th</sup> semester
6)	14ISO662	Object oriented programming with C++	Introduced as an open elective for 6 <sup>th</sup> semester
7)	14ISO663	Unix fundamentals	Introduced as an open elective for 6 <sup>th</sup> semester
8)	14ISO664	Essentials of information technology	Introduced as an open elective for 6 <sup>th</sup> semester

**Approval of detailed syllabus of III and IV Semesters for 2014 Batch**

**Suggestions:**

The following points were discussed in the Board of Studies (BOS) meeting held on 20-06-15:

1. It was suggested to reduce the total credits from 200 to 170 for each semester.
2. It was suggested by the panel to give more emphasis on learning methodology
3. The industry experts suggested to give longer duration to students with the industries rather than just 1 or 2 months during the internship

4. The alumni members suggested that more emphasis must be provided for programming exercises by subscribing to accounts like GitHub and CourseEra online courses.
5. The panel also pointed out to revise the Course Outcomes for III and IV Semester subjects
6. The experts suggested introducing application oriented programs in Data Structure Lab.
7. The panel also suggested to wait before introducing GPU Programming as a subject.

### Resolutions:

The following decisions were taken in the meeting:

1. In 3<sup>rd</sup> Semester scheme following changes were made:
  - Electronic circuits (EC) and Logic design (LD) subjects were combined into one subject.
  - Credits for EC & LD Lab and Data Structures (DS) Lab were increased from 1.5 to 2 credits.
  - Mini-project Lab was introduced in 3<sup>rd</sup> Semester
2. In 4<sup>th</sup> Semester scheme following changes were made:
  - Credits for Object Oriented and Programming (OOPS) with C++ were reduced from 4 credits to 3 credits.
  - Credits for OOPS Lab and DS Lab were increased from 1.5 to 2 credits
3. In 5<sup>th</sup> Semester scheme following changes were made:
  - Analysis and Design of Algorithms (ADA) Lab was removed. In place of it, System Programming (SP) Lab was introduced.
  - Credits for System Programming theory was reduced from 4 to 3.
  - Credits for Database Management System (DBMS) Lab and SP Lab were increased from 1.5 to 2 credits
4. In 6<sup>th</sup> Semester scheme following changes were made:
  - Compiler Construction subject was removed. In place of it, Parallel Programming (PP) subject was introduced.
  - Lex and Yacc syllabus present in Compiler Construction was moved to Finite Automata and Formal Languages subject in 5<sup>th</sup> Sem.
  - Credits for core Java theory was reduced from 4 to 3, while credits for Computer Networks Lab and Java Lab were increased from 1.5 to 2 credits.

5. In 7<sup>th</sup> Semester scheme following changes were made:
- Distributed Computing (DC) subject was introduced in place of PP subject.
  - Credits for Web Technology subject was reduced from 4 to 3.
  - WT Lab was introduced in place of Java Lab
  - Credits for DC Lab and WT Lab were increased from 1.5 to 2 credits.
6. 8<sup>th</sup> Semester scheme was approved without any changes
7. Following changes were made in connection with the detailed syllabus for 3<sup>rd</sup> Semester:
- The combined subject of EC & LD was formed by removing 1<sup>st</sup> three units in EC. Gates topic in LD was moved from unit 1 to 2.
  - Programming in C by Dennis Ritchie was introduced as a reference book for Data Structures using C subject
8. Following changes were made in connection with the detailed syllabus for 4<sup>th</sup> Semester:
- OOPS syllabus was diluted for units 4 and 5
  - In Graph Theory (GT), one unit was dedicated to applications of GT
  - In Microprocessor, reference book on 8055 was removed.
9. The subject "Robotics Engineering – LEGO Mindstorms and TETRIS" was introduced as open elective in 3<sup>rd</sup> or 4<sup>th</sup> Semester. It had 3 credits with 40% theory component and 60% Lab component. This was an initiative taken for the first time in India.
10. The subject Android Development was introduced as a core elective for 7<sup>th</sup> Sem. Its detailed syllabus was approved.
11. The detailed syllabus of Web Technology for 7<sup>th</sup> sem was modified and approved.
12. The detailed syllabus of System Programming for 5<sup>th</sup> Sem was modified and approved



HOD, ISE

(Dr. Sanjay.H.A)

# NitteMeenakshi Institute of Technology

Bangalore-64

(An Autonomous Institution)

(Affiliated to Visvesvaraya Technological University, Belgaum, Approved by AICTE & Govt. Of Karnataka)

## BOARD OF STUDIES IN INFORMATION SCIENCE AND ENGINEERING MINUTES OF MEETING

Meeting Date: 11/06/2016  
Cell

Venue: New Placement

### Agenda:

1. Approval of detailed syllabus of 5<sup>th</sup> and 6<sup>th</sup> semester 2014 scheme.
2. Newly introduced subjects in comparison with 2010 scheme
3. Approval of minimum changes in 7<sup>th</sup> and 8<sup>th</sup> semester syllabus of 2010 scheme.

### Newly introduced subjects in comparison with 2010 scheme

Sl.No	Course Code	Course Name	Remarks
1.	14IS72	Software project management	Elective has been changed as a core subject with title modification
2.	14ISH73	Venture process management & IPR	Introduced as a core subject for 7 <sup>th</sup> semester
3.	14ISL76	Web technology lab	Theory is removed and integrated lab is introduced for 7 <sup>th</sup> semester
4.	14ISP79	Internship/self study/mini project	Introduced in 7 <sup>th</sup> semester
5.	14ISE741	Big data	Introduced as a core elective for 7 <sup>th</sup> semester
6.	14ISE742	Machine learning	Introduced as a core elective for 7 <sup>th</sup> semester
7.	14ISE743	Android application development and version control repository	Introduced as a core elective for 7 <sup>th</sup> semester
8.	14ISO751	Fundamentals of java	Introduced as an open elective for 7 <sup>th</sup> semester

9.	14ISO752	Design and development of web applications	Introduced as an open elective for 7 <sup>th</sup> semester
10.	14ISO753	Mobile app development	Introduced as an open elective for 7 <sup>th</sup> semester
11.	14ISO754	Python programming	Introduced as an open elective for 7 <sup>th</sup> semester
12.	14ISH82	Foss and cyber laws	Introduced as a core subject for 8 <sup>th</sup> semester
13.	14ISE833	Advanced java	Introduced as a core elective for 7 <sup>th</sup> semester

**Approval of detailed syllabus of 5<sup>th</sup> and 6<sup>th</sup> semester 2014 scheme.**

SL. No	COURSE	SUGGESTIONS
1)	COMPUTER NETWORKS I	<ul style="list-style-type: none"> <li>ATM topic can be removed</li> <li>Instead of ATM "Switch architecture" or MPLS can be added.</li> </ul>
2)	SYSTEM PROGRAMMING	<ul style="list-style-type: none"> <li>Can remove the topics related to absolute loader etc.</li> <li>Concepts of DLL need to be added.</li> </ul>
3)	OPERATING SYSTEM	<ul style="list-style-type: none"> <li>"Project management" part is not required.</li> <li>Syllabus is heavy. Need relooking. History part is not required.</li> </ul>
4)	DBMS	<ul style="list-style-type: none"> <li>Contents are little more. Need relooking. History part is not required.</li> <li>Normal forms upto BCNF is fine. 4<sup>th</sup> and 5<sup>th</sup> normal forms are not required.</li> <li>DBMS theory needs to introduce the importance of non-ACID databases.</li> <li>Unit 5 is very heavy. Can cover just introduction to concurrency control and Recovery.</li> </ul>
5)	FINITE AUTOMATA AND COMPILER DESIGN	<ul style="list-style-type: none"> <li>It was decided to give FLAT as independent course and Compiler design as Elective.</li> <li>In FLAT there is lot of dead topics such as proof of pumping lemma, CFG etc. They can be removed. Their introduction is enough.</li> <li>JFLAP-Open source tool can be used to simulate automata.</li> <li>Lex and Yacc can be added as part of FLAT after discussion of regular expressions.</li> </ul>
6)	PYTHON FOR DATA SCIENCE	<ul style="list-style-type: none"> <li>Suggested to introduce String concepts in unit-2</li> </ul>
7)	COMPUTER GRAPHICS WITH OPENGL&CUDA	<ul style="list-style-type: none"> <li>Changed the title, added few concepts of CUDA</li> </ul>



8)	INTERNET OF THINGS	<ul style="list-style-type: none"> <li>• Syllabus has to be revised</li> </ul>
9)	DATA MINING	<ul style="list-style-type: none"> <li>• Need to include some of the practical issues like Data cleaning, time series.</li> <li>• Add few more algorithms on classification and clustering</li> </ul>
10)	COMPUTER NETWORKS II	<ul style="list-style-type: none"> <li>• Transport layer level security is missing.</li> <li>• Syllabus seems heavy. Need to relook.</li> </ul>
11)	SOFTWARE ENGINEERING	<ul style="list-style-type: none"> <li>• Reduce the design part and enhance development and maintenance part.</li> <li>• If there is a separate course for Project management then those topics need not be covered in Software Engineering.</li> </ul>
12)	CORE JAVA	<ul style="list-style-type: none"> <li>• Title need relooking: some of the suggestions were "Object Oriented Programming with JAVA" of "Object Oriented Application Development with JAVA".</li> <li>• Topic "Vectors" can be replaced with "Map"</li> <li>• JDBC has to be introduced.</li> <li>• Unit 4 can be JDBC and Unit 5 JAVA networking.</li> <li>• GUI part has to be retained. Constructor overloading etc. need not be covered here as they are introduced in OOP with C++.</li> </ul>
13)	OBJECT ORIENTED PROGRAMMING WITH C++	<ul style="list-style-type: none"> <li>• Reduce the content of the syllabus</li> </ul>
14)	UNIX FUNDAMENTALS	<ul style="list-style-type: none"> <li>• Content looks heavy, need to be revised</li> </ul>
15)	ESSENTIALS OF INFORMATION TECHNOLOGY	<ul style="list-style-type: none"> <li>• Reduce the contents of unit-3</li> </ul>
16)	WEB TECHNOLOGIES	<ul style="list-style-type: none"> <li>• Apache and LAMP stack to be introduced.</li> </ul>
17)	MATHS III	<ul style="list-style-type: none"> <li>• Laplace and Fourier transform can be retained as UNIT I and II</li> <li>• Linear program need to be given importance and remaining units III, IV and V can include topics from LP.</li> </ul>
18)	MATHS IV	<ul style="list-style-type: none"> <li>• Hypothesis testing need to be introduced.</li> <li>• Game theory in itself is a separate course. So it can be removed as a part of math course and can be introduced as an elective.</li> </ul>

### 3. General Suggestions

- POs should be changed as per new NBA guidelines.
- 2 to 4 PSOs should be added.
- Course mappings need to be changed as per new POs and PSOs.
- Hands on part should be explicitly mentioned in scheme. (Wherever course project, programming assignments are there.)
- Domain based training in labs will be helpful rather than tool based learning.

- f. Course outcomes should be very generic and they should not contain any tool specific statements.
  - i. Ex: "Using NS3 students will learn ....." is wrong. What students will learn is important but tool need not be specific to NS3.
- g. OS Lab: This lab may use some changes to open source operating system Linux. May include kernel modules, Daemon etc.
- h. In order to include "Ethics" Po in final year project student's work can be checked for Plagiarism.
- i. Dr. Rajanikanth suggested that "Project management and Finance" course can be added as a part of Project Preliminaries in 7<sup>th</sup> semester.

### Resolutions:

The following decisions were taken for the 2014 batch syllabus as per the BOS suggestions:

- Lab component was introduced in ADA subject
- In CN-I subject, instead of ATM, "Switch architecture" was added
- With regards to System Programming subject, DLL concepts were added by removing topics related to absolute loader
- In case of Operating system subject, History of OS and project management topics were removed
- With respect to DBMS, the topics related to history of DBMS was reduced and the introduction to concurrency control and recovery were kept
- Introduced Strings concepts in Python for data science
- CUDA concepts were introduced in Computer graphics with OPENGL & CUDA.
- Compiler construction was removed as a core subject from 6<sup>th</sup> semester and was introduced as a core subject.
- In FLAT subject following changes were made:
  - Proof of pumping lemma, CFG were removed and their introduction was added as per the BOS suggestion
  - Open source tool JFLAP was used to simulate automata
  - Lex and Yacc was added in the 3<sup>rd</sup> unit of FLAT
- In Data Mining subject, recent topics related to data cleaning and time series data
- In CN-II subject, Transport layer level security was introduced
- As per the suggestions, changes were incorporated in IoT, Essentials of Information Technology, OOP with C++, and Unix Fundamentals. With regards to Web Technologies subject, Apache and LAMP stack were introduced

  
HOD signature

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Karnataka)

**BOARD OF STUDIES IN INFORMATION SCIENCE AND ENGINEERING  
MINUTES OF MEETING**

Meeting Date:09/06/2018

Venue: ISE Lab1

**Agenda:**

- Finalizing scheme and syllabus of 2017-18 batch.

**Newly introduced courses are as follows:**

SL. NO	Course Name	Course Code
1.	Mathematical Foundation for Computer Networks	18CN11
2.	Wireless Sensor & Mobile Networks	18CN13
3.	Internet of Things	18CN142
4.	Multimedia Communication	18CN143
5.	Software Defined Networks	18CN151
6.	Analytical Approach for Data Networks	18CN22
7.	Information Security Lab	18CNL26
8.	Research Methodology & IPR	18CNL27
9.	Real Time Operating System	18CN241
10.	Vehicular Networks	18CN242
11.	Machine Learning	18CN243
12.	Block Chain	18CN251
13.	Data Analytics	18CN252
14.	Disruptive Technologies	18CN253

Suggested changes for MTECH CNE courses are listed below:

Newly introduced courses for the

SL. NO	COURSE	SUGGESTIONS
1.	MATHEMATICAL FOUNDATIONS OF COMPUTER NETWORKS	<b>Rajanikanth Sir:</b> <ul style="list-style-type: none"><li>• Syllabus need to be relooked.</li><li>• Basic concepts of mathematics that is thought in engineering should be removed from the syllabus.</li></ul> <b>Dr. Prabhu:</b> <ul style="list-style-type: none"><li>• Mathematics for Engineers book can be referred.</li><li>• Modulo Arithmetic and Group theory concepts can be included in the syllabus.</li><li>•</li></ul>
2.	WIRELESS COMMUNICATION	<b>Dr. Prabhu:</b>

		<ul style="list-style-type: none"> <li>Prerequisites should be changed.</li> <li><b>Rajanikanth Sir:</b></li> <li>Latest protocols are missing in the subject.</li> <li>1G, 2G technologies have to be added to the syllabus</li> <li>New edition text should be referred.</li> </ul>
3.	<b>NETWORK SECURITY</b>	<b>Rajanikanth Sir:</b> <ul style="list-style-type: none"> <li>Unit-2 seems to be heavy</li> <li>Course seems heavy for students coming from non-IT branches like EC</li> </ul>
4.	<b>ADVANCES IN COMPUTER NETWORKS</b>	<b>Mr. Rahul &amp; Dr. Prabhu:</b> <ul style="list-style-type: none"> <li>Publications included are not matching with the syllabus content</li> <li>Survey papers can be referred for research publications.</li> </ul> <b>Dr. Thippeswamy M N:</b> <ul style="list-style-type: none"> <li>.SMTP concepts can be added to the syllabus.</li> </ul>
5.	<b>INTERNET OF THINGS</b>	<b>Rajanikanth Sir:</b> <ul style="list-style-type: none"> <li>Unit – II syllabus needs to be rephrased using key phrases.</li> </ul> <b>Dr. Prabhu:</b> <ul style="list-style-type: none"> <li>Intel initiatives towards IoT can be referred for the course.</li> </ul>
6.	<b>DISTRIBUTED COMPUTING</b>	<b>Rajanikanth Sir:</b> <ul style="list-style-type: none"> <li>Relook the contents of the subject</li> <li>Only one text book was provided in the syllabus</li> <li>Outdated topics need to be removed</li> <li>Can go for Multicore architecture or Network functions instead of Distributed computing</li> </ul>
7.	<b>BIG DATA ANALYTICS</b>	<b>Rajanikanth Sir:</b> <ul style="list-style-type: none"> <li>No topics related to Analytics present in the syllabus</li> </ul>
8.	<b>HIGH SPEED NETWORKS</b>	<b>Rajanikanth Sir:</b> <ul style="list-style-type: none"> <li>ATM topic is dead and needs to be removed</li> <li>Old text book was kept</li> <li>Suggestion was made to drop this course</li> </ul>
9.	<b>MACHINE LEARNING</b>	<b>Rajanikanth Sir:</b> <ul style="list-style-type: none"> <li>Suggestion was made to drop this course</li> </ul>

2.

#### General Suggestions

- PSOs need to be added related to system hardware and software so as to map core subjects to the PSOs and elective subjects should not be mapped.
- Survey papers may be added as research papers.
- Student who has taken same subject in UG course cannot take the same subject as elective in PG course.

