

2017

Minutes of the Meeting of Board of Studies of Amity School of Engineering and Technology held on 15<sup>th</sup> March, 2017 in Smart Room C-214

The meeting of the Board of Studies of Amity School of Engineering and Technology was held on 15<sup>th</sup> March, 2017 in Smart Room C-214 and following attended the meeting:

- |  |   |                 |
|--|---|-----------------|
| 1. Maj.Gen.V.K. Narang (Retd.), Director ASET              | - | Chairman        |
| 2. Dr. A. K. Raghav, HOD, Mechanical Engg.                 | - | Member          |
| 3. Dr. Priti Singh, HOD, Electronics and Comm. Engg.       | - | Member          |
| 4. Dr. R. K. Malik, HOD, Civil Engg.                       | - | Member          |
| 5. Dr. Shalini Bhaskar Bajaj, HOD, CSE                     | - | Member          |
| 6. Dr. Shiv Sharma, Faculty, Mechanical Engg.              | - | Member          |
| 7. Dr.K.N. Jha, Associate Prof. of Civil Engg., IIT, Delhi | - | External Expert |

Besides these, Mr. Arnab Bhattacharya, Senior Manager, Fluor Daniel (India) Pvt. Ltd also participated by offering his comments through correspondence as an External Industry Expert.

At the onset of the meeting, Director, ASET welcomed the members of the committee and the external expert Dr.K.N. Jha and introduced him to the members. He also elaborated the purpose for which the meeting was called and thereupon HOD, Civil Engg. initiated the discussion on the different agenda points related to civil engineering discipline.

After detailed discussion and deliberations, the following decisions were taken agenda-wise and are elaborated below:

Agenda item No. 1. To review and finalize the Ph.D. Core Course on Sustainable Constructions and Built Environment.

After detailed discussion and deliberations, the following incorporations/changes/modifications were finalized to be included in the proposed course. While proposing these modifications, the comments of Mr. Arnab Bhattacharya were also taken into consideration. (Attached as Exhibit)

1. The objectives of the course be revised and elaborated considering the outcome.
2. In Module-1- the following topics: i) importance of embedding sustainability into engineering. ii) Net-zero building, iii) review of rating systems and iv) case studies of different buildings under rating systems be included.

Arnab Bhattacharya

Paul Saha

Zulfi

[Signature]



3. In Module-II embedded energy/ embodied energy of different building materials and importance of harvesting renewable sources be included.
4. The GRIHA ratings topic from Module-IV to Module-I be shifted.
5. Topics related to economics i.e: Net present value (NPV) and Payback in Module-V be included.

These modifications be incorporated in the proposed course.

**Agenda item No. 2. To review and finalize the Course Structure and detailed Course Content of M.Tech. (Water Resources Engineering) program**

After detailed discussion and deliberations, the following incorporations/changes/modifications were finalized to be included in the proposed course structure and detailed course content of M.Tech program.

1. Overall program objectives be included.
2. Independent Study subject (4 credit hrs) as an elective-1 in 2<sup>nd</sup> semester be included in place of Environment Impact Assessment (EIA) and Water Resources Project.
3. Duplication of the subject Modeling of Water Resources Systems in elective 2 and 3 of 3<sup>rd</sup> semester be removed and the subject from the 2<sup>nd</sup> semester EIA and Water Resources Project be shifted in its place in semester 3<sup>rd</sup>.
4. Textbooks and Reference Books be separately mentioned for all the courses wherever necessary.

These modifications be incorporated in the proposed course structure as well as in the detailed course contents.

**Agenda item No. 3. To review and finalize the Course Structure and detailed Course Content of M.Tech. (Transportation Engineering) program**

After detailed discussion and deliberations, the following incorporations/changes/modifications were finalized to be included in the proposed course structure and detailed course content of M.Tech program.

1. Overall program objectives be included.
2. Independent Study subject (4 credit hrs) in place of Ground Improvement Techniques as an elective in 2<sup>nd</sup> semester be included.

*Armin*  
*Abbas*

*P. S. S.*

*Zulfi*


*[Signature]*




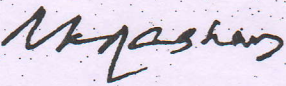
3. The subject Optimization and Quantitative methods in Transportation Engineering of 4 credit hrs instead of Bridge Engineering be included.
4. Textbook: Principles of Transportation Engineering, Chakraborty & Das, PHI Learning, New Delhi, 2011 be included as a textbook at the appropriate place.
5. Textbooks and Reference Books be separately mentioned for all the courses wherever necessary.

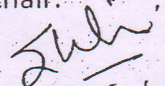
These modifications be incorporated in the proposed course structure as well as in the detailed course contents.

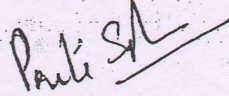
The meeting ended with a vote of thanks to the chair.

  
(Dr. Shiv Sharma)


  
(Dr. R. K. Malik)

  
(Dr. A. K. Raghav)

  
(Dr. Shalini Bhaskar Bajaj)

  
(Dr. Priti Singh)

(Dr. K.N. Jha)

  
(Maj. Gen. V.K. Narang)



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| 1. Maj. Gen. V.K. Narang (Retd.), Director, ASET            | Chairman        |
| 2. Dr. A. R. Baghav, HOD, Mechanical Engg.                  | Member          |
| 3. Dr. Priti Singh, HOD, Electronics and Comm. Engg.        | Member          |
| 4. Dr. R. K. Majik, HOD, Civil Engg.                        | Member          |
| 5. Dr. Shalini Bhasakar Bajaj, HOD, CSE                     | Member          |
| 6. Dr. Shiv Sharma, Faculty, Mechanical Engg.               | Member          |
| 7. Dr. K.N. Jha, Associate Prof. of Civil Engg., IIT, Delhi | External Expert |

Besides these, Mr. Arnab Bhattacharya, Senior Manager, Fluor Daniel (India) Pvt. Ltd also participated by offering his comments through correspondence as an External Industry Expert.

At the onset of the meeting, Director, ASET welcomed the members of the committee and the external expert Dr. K.N. Jha and introduced him to the members. He also elaborated the purpose for which the meeting was called and thereupon HOD, Civil Engg. initiated the discussion on the different agenda points related to civil engineering discipline.

After detailed discussion and deliberations, the following decisions were taken agenda-wise and are elaborated below:

**Agenda Item No. 1. To review and finalize the Ph.D. Core Course on Sustainable Constructions and Built Environment.**

After detailed discussion and deliberations, the following incorporations/changes/modifications were finalized to be included in the proposed course. While proposing these modifications, the comments of Mr. Arnab Bhattacharya were also taken into consideration.

1. The objectives of the course be revised and elaborated considering the outcome.
2. In Module-1 the following topics: i) importance of embedding sustainability into engineering, ii) Net-zero building, iii) review of rating systems and iv) case studies of different buildings under rating systems be included.

*Arnab Bhattacharya*

*Pratik Singh*

*Sulvi*

*[Signature]*

IIT-D

IIT-Roorkee

NIT-TRICHY

PEC



3. In Module-II embedded energy/ embodied energy of different building materials and importance of harvesting renewable sources be included.
4. The GRIHA ratings topic from Module-IV to Module-I be shifted.
5. Topics related to economics i.e. Net present value (NPV) and Payback in Module-V be included.

These modifications be incorporated in the proposed course.

**Agenda Item No. 2. To review and finalize the Course Structure and detailed Course Content of M.Tech. (Water Resources Engineering) program**

After detailed discussion and deliberations, the following incorporations/changes/modifications were finalized to be included in the proposed course structure and detailed course content of M.Tech program.

1. Overall program objectives be included.
2. Independent Study subject (4 credit hrs) as an elective-1 in 2<sup>nd</sup> semester be included in place of Environment Impact Assessment (EIA) and Water Resources Project.
3. Duplication of the subject Modeling of Water Resources Systems in elective 2 and 3 of 3<sup>rd</sup> semester be removed and the subject from the 2<sup>nd</sup> semester EIA and Water Resources Project be shifted in its place in semester 3<sup>rd</sup>.
4. Textbooks and Reference Books be separately mentioned for all the courses wherever necessary.

These modifications be incorporated in the proposed course structure as well as in the detailed course contents.

**Agenda Item No. 3. To review and finalize the Course Structure and detailed Course Content of M.Tech. (Transportation Engineering) program**

After detailed discussion and deliberations, the following incorporations/changes/modifications were finalized to be included in the proposed course structure and detailed course content of M.Tech program.

1. Overall program objectives be included.
2. Independent Study subject (4 credit hrs) in place of Ground Improvement Techniques as an elective in 2<sup>nd</sup> semester be included.

*Amal*  
*Mishra*

*P. S. S.*

*S. S.*

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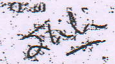


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4. Textbook: Principles of Transportation Engineering, Chakraborty & Das, PHI Learning, New Delhi, 2011 be included as a textbook at the appropriate place.
5. Textbooks and Reference books be separately mentioned for all the courses wherever necessary.


These modifications be incorporated in the proposed course structure as well as in the detailed course contents.


The meeting ended with a vote of thanks to the Chair.

  
(Dr. Shiv Sharmat)


  
(Dr. Shalini Bhaskar Bajaj)

  
(Dr. R. K. Malik)

  
(Dr. Priti Singh)

  
(Dr. A. K. Raghav)

  
(Dr. K.N. Jhal)

  
(Maj. Gen. V.K. Narang)



Amity University Gurgaon

Amity Institute of Information Technology

MINUTES OF BOARD OF STUDIES MEETING

1. The Board of Studies Meeting was conducted in Room No. C-106 – C Block on 13<sup>th</sup> June 2017.

2. The following were present:

(a) Members:

- (i) Prof.(Dr.) Ashok Kumar Raghav, Director – IRD, AUH
- (ii) Dr. Priti Singh, Director, IQCA, AUH
- (iii) Dr. Meenal Sharma, Assistant Professor, ASE, AUH (Nominee P.VC)
- (iv) Prof.(Dr.) Shalini Bhaskar Bajaj , HoD, CSE, ASET, AUH
- (v) Prof.(Dr.) R.K. Malik, HOD, CE, ASET, AUH
- (vi) Prof.(Dr.) Janak Patel, HoD, ECE, ASET, AUH
- (vii) Dr. Sunil Sikka, Associate Professor, Coordinator AIIT, AUH
- (viii) Dr. Shiv Sharma, Assistant Professor, ME, ASET, AUH

(b) External Expert

- (i) Dr. Swati Agarwal, Assistant Professor, CSE, NSIT, New Delhi
- (ii) Mr. Anuj Sharma, Senior Manager, Tata Consultancy Services, Gurgaon (was not present but mailed his observations and suggestions)

3. Agenda:

At the outset the Dr. Sunil Sikka welcomed all the members present and explained the purpose of the Meeting. He then gave a brief on each of the following agenda issues to be taken up:-

- (a) Review of BCA Programme - 150 Credits
- (b) Review of BCA+MCA(Dual Degree) Programme- 280 Credits
- (c) Review of B.SC(IT) Programme - 150 Credits
- (d) Review of MCA Programme – 170 Credits
- (e) Review of MCA(Later Entry) Programme -130 Credits

4. Details of deliberations and discussions held and decisions taken are covered in the subsequent paragraphs.



## 5. Review of BCA Programme : 150 Credits

5.1 Semester wise changes proposed and discussed are listed below as a comparative table of existing and proposed Programme Structure of BCA

Sem	Existing	Proposed
1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• IFT2109 Mathematics-I (2-1-0)</li> <li>• IFT2110 Discreet Mathematical Structure with application to CS (2-1-0)</li> <li>• IFT2111 &amp; IFT2-113 Computer Fundamentals and Programming Concepts (2-1-2).</li> <li>• IFT2112 Digital Electronics</li> <li>• CSS2151 Effective Listening (1-0-0)</li> <li>• BEH2151 Understanding Self for effectiveness(1-0-0)</li> <li>• ENV2152 Environmental Studies(4-0-0)</li> <li>• FL (3-0-0)</li> <li>• Open Elective(3-0-0)</li> </ul>	<ul style="list-style-type: none"> <li>• “Discrete Mathematics Structures with application to CS” course moved to 3<sup>rd</sup> Semester.</li> <li>• “Computer Fundamentals &amp; Programming Concepts” has been divided into “Computer Fundamentals” and “Computer Programming with C Language” courses.</li> <li>• Syllabus and credits of courses are revised wherever required.</li> <li>• Value Added and FL courses remain same.</li> </ul>
2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• IFT2210 Mathematics II (2-1-0)</li> <li>• IFT2211 &amp; IFT2216 Data &amp; File Structures using C (2-0-2)</li> <li>• IFT2212 Computer Architecture &amp; Assembly Language (3-0-0)</li> <li>• IFT.2213 Production Operation Management (2-1-0)</li> <li>• IFT 2214 System Analysis &amp; Design (2-0-0)</li> <li>• IFT 2215 Internet Fundamentals (2-0-0)</li> <li>• CSS2251 Presentation Skills(1-0-0)</li> <li>• BEH2251 Problem Solving &amp; Creative Thinking (1-0-0)</li> <li>• FL (3-0-0)</li> <li>• Open Elective(3-0-0)</li> </ul>	<ul style="list-style-type: none"> <li>• “Production Operation Management” has been discontinued and in place of it more Computer Science related subjects are introduced.</li> <li>• “System Analysis &amp; Design” subject is discontinued as it is an obsolete subject and not required to study.</li> <li>• “Internet Fundamentals” is discontinued and essential contents are included in the course “Web Technologies”</li> <li>• “Web Designing” is moved from 5<sup>th</sup> semester to 2<sup>nd</sup> semester with the name “Web Technologies” as it is core subject therefore must be taught earlier.</li> <li>• “Database Management System” is moved from 3<sup>rd</sup> semester to 2<sup>nd</sup> semester</li> <li>• Syllabus and credits of courses are revised wherever required.</li> <li>• Value Added and FL courses remain same.</li> </ul>



3<sup>rd</sup>

- IFT 2311 Computer Oriented Statistical & Optimization methods (3-0-0)
- IFT 2312 & IFT 2315 Object Oriented Programming Concepts using C++ (2-0-2)
- IFT 2313 & IFT 2316 Database Management System (2-1-2)
- IFT Operating System (2-0-0)
- IFT2335 Summer Internship – I (Evaluation) (0-0-0)3
- CSS2351 Reading & Comprehension (1-0-0)
- BEH2351-Group Dynamic & Team Building (1-0-0)
- FL (2-0-0)
- Open Elective(3-0-0)
- Elective(3-0-0)
- ✓ IFT 2308 Accounting & Financial Management
- ✓ IFT2309 Marketing Management
- ✓ IFT2331 Term Paper
- IFT2310 Advanced Technologies in Computer Science
- “Computer Oriented Statistical & Optimization methods” is moved to 6<sup>th</sup> semester
- “Operating System” syllabus is revised and also its Lab is introduced.
- “Database Management System” is moved to 2<sup>nd</sup> semester
- “Software Engineering” is moved from 5<sup>th</sup> Semester to 3<sup>rd</sup> Semester.
- “Management Information System” is introduced as a new subject as it will help students to learn MIS related concept.
- “Discrete Mathematical Structure with Application to CS”, moved from 1<sup>st</sup> semester to 3<sup>rd</sup> semester.
- Concentrative electives are removed from this semester. As it is not required.
- Syllabus and credits of courses are revised wherever required.
- Value Added and FL courses remain same.



Amity University Gurgaon

Amity School of Engineering and Technology

Department of Computer Science and Engineering

MINUTES OF BOARD OF STUDIES MEETING

1. The Board of Studies Meeting was conducted in Room No. C-106 – C Block on 14<sup>th</sup> June 2017.

2. The following were present:

(a) Members:

- (i) Dr. Priti Singh, Director, IQCA, AUH
- (ii) Dr. Meenal Sharma, Assistant Professor, ASE, AUH (Nominee P.V.C)
- (iii) Prof.(Dr.) Shalini Bhaskar Bajaj , HoD, CSE, ASET, AUH
- (iv) Prof.(Dr.) R.K. Malik, HOD, CE, ASET, AUH
- (v) Prof.(Dr.) Janak Patel, HoD, ECE, ASET, AUH

(b) External Expert

- (i) Dr. Swati Agarwal, Assistant Professor, CSE, NSIT, New Delhi
- (ii) Mr. Anuj Sharma, Senior Manager, Tata Consultancy Services, Gurgaon (was not present but mailed his observations and suggestions)

3. Agenda:

At the outset the Dr. Shalini Bhaskar Bajaj welcomed all the members present and explained the purpose of the Meeting. She then gave a brief on each of the following agenda issues to be taken up:-

(a) Proposal on starting three new M.Tech. programmes on:

- i. Data Sciences - 130 credits
- ii. Artificial intelligence and Robotics - 130 credits
- iii. Network and Cyber Security - 130 credits

(b) Proposal on starting three new B.Tech. + M.Tech.- Integrated programmes on:

- i. Data Sciences - 280 credits
- ii. Artificial intelligence and Robotics - 280 credits
- iii. Network and Cyber Security - 280 credits

(c) Proposal on starting B.Tech (Internet of Things) - 210 credits

4. Details of deliberations and discussions held and decisions taken are covered in the subsequent paragraphs.



**(a) Discussion on New M.Tech Programmes**

i. For M.Tech (Artificial Intelligence and Robotics) programme following suggestions were given:

1. It was suggested to change the name of the following courses:

- Course on "Advanced Applied Mathematics for Engineers" in second semester to be renamed as "Advanced Applied Mathematics".
- Course on "Microprocessor Engineering and Applications" in second semester to be renamed as "Microprocessor and Interfacing"
- Laboratory course on "Microprocessor Engineering" in second semester to be renamed as "Microprocessor and Interfacing Lab"
- Course on "Advanced Pattern Recognition and Image Processing" in third semester to be renamed as "Pattern Recognition and Image Processing"
- Course on "Optimization in Engineering for Decision Making" in third semester to be renamed as "Optimization Techniques"

**(b) Discussion on new B.Tech + M.Tech - Integrated programmes**

i. For B.Tech + M.Tech (Artificial Intelligence and Robotics) - Integrated Programme same suggestions as in M.Tech.(Artificial Intelligence and Robotics) were made regarding the course names.

**(c) Discussion on B.Tech (Internet of Things)**

i. It was suggested to:

- Shift course on "Microprocessor" along with "Microprocessor Lab" from sixth semester to fifth semester
- Shift course on "Design and Analysis of Algorithms" along with "Design and Analysis of Algorithms Lab" from seventh semester to sixth semester
- Shift course on "Micro-controller" along with "Micro-controller Lab" from seventh semester to sixth semester as a core course.
- Shift course on "Software Engineering" along with "Software Engineering Lab" from fifth semester to seventh semester as a concentration elective course.
- Shift course on "Introduction to Raspberry Pi and Arduino" along with "Introduction to Raspberry Pi and Arduino Lab" from sixth semester to seventh semester



Detailed discussions were held on the above proposed new programmes and it was unanimously decided to incorporate all of above changes. It was also clarified that the changes will not affect the total credits of the Programmes. Programme structure of all new programmes is attached as Appendices A, B, C, D, E, F and G.

Mr. Anuj Sharma (External Industry Expert) could not attend the meeting due to some urgent meeting at his office. He sent his observations and suggestions by mail (attached for reference).

Meeting ended with a vote of thanks to all attendees.

Swati

(Dr. Swati Aggarwal)

JBPATEL  
23/06/2017

(Prof. Janak Patel)  
HOD, ECE, ASET, AUH

Swati  
23/6/17

(Prof. Shalini Bhaskar Bajaj)

Meenalsharma  
23/6/17

(Dr. Meenal Sharma)

R. K. Maik

(Prof. R. K. Maik)

P. Singh

(Prof. Priti Singh)





**Amity University Haryana**  
**Amity School of Engineering and Technology**  
**MINUTES OF MEETING (BOARD OF STUDIES)**

1. The Board of Studies Meeting was conducted in room no. 214 of C Block on 14<sup>th</sup>, July 2017 and subsequent days to review the academic framework of four years B.Tech and two years M.Tech programmes.
2. The following were present :
  - (a) **As Member of BOS - ASET :**
    - (i) Maj. Gen. V.K. Narang (Retd.), Director ( ASET & AIIT) – Chairman BOS
    - (ii) Prof. Ashok Kumar Raghav, HOD (ASE) & Director – IRD
    - (iii) Dr. Priti Singh, Professor (ECE)
    - (iv) Dr. R.K. Malik, HOD (Civil Engineering)
    - (v) Dr. Shalini Bhaskar Bajaj, HOD (CSE)
    - (vi) ~~Prof.~~ Dr. Janak Patel, HOD (ECE/EEE)
    - (vii) Dr. Sanjeev Sharma, HOD (Mechanical Engineering)
    - (viii) Mr. Manish Kr. Bharti, Coordinator (ASE)
    - (ix) Ms. Sakshi Sethi, Assistant Professor (BME)
  - (b) **As Special Invitees**
    - (i) Dr. Vivek Jaglan (Associate Professor, Department of CSE)
    - (ii) Dr. Vikas Thada (Associate Professor, Department of CSE)
    - (iii) Dr. Sunil Sikka (Associate Professor, Department of CSE)
    - (iv) Ms. Aman Jatain (Assistant Professor, Department of CSE)
    - (v) Mr. Ankit Garg (Assistant Professor, Department of CSE)
    - (vi) Mr. Ganesh Gupta (Assistant Professor, Department of CSE)
    - (vii) Dr. Rajesh Arora (Associate Professor, Department of ME)
    - (viii) Dr. Vineet Jain (Associate Professor, Department of ME)
    - (ix) Dr. Shiv Sharma (Assistant Professor, Department of ME)
    - (x) Dr. Naveen B.P. (Associate Professor, Department of CE)
    - (xi) Ms. Sakshi Gupta (Assistant Professor, Department of CSE)
    - (xii) Mr. Lalit Kumar Yadav (Assistant Professor, Department of ME)
    - (xiii) Dr. Prakhar Jindal (Assistant Professor, Department of ASE)
    - (xiv) Mr. Yashil Handa (Assistant Professor, Department of BME)
    - (xv) Mr. Anil Yadav (Assistant Professor, Department of ECE)



### 3. Agenda:

At the outset the Chairman welcomed all the members in attendance and explained the purpose of the Meeting. He then presented a brief overview on each of the following agenda issues to be taken up:-

- To rationalize number of credits and contact hours for students to align with best practices and market demand.
  - To allow students' flexibility to pursue practical projects, industry certification, self study and group projects.
  - To ensure the relevance of programme by allowing students to pursue their specific interests.
4. To enhance the research & innovation activities for the students and to give more time to students for self study it is required to review the existing credit structure. In the institutes and universities of repute the requirement of number of credits for getting the B.Tech and M.Tech degrees is very less than that for the B.Tech and M.Tech programmes in ASET. Taking the same into consideration it was unanimously decided in the meeting that the credit requirement is revised to 195 for B.Tech programmes and 100 for M.Tech programmes respectively.

### 5. Methodology Followed:

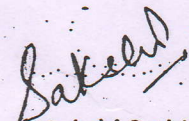
- A balanced curriculum throughout all semesters in terms of credits to conform to the regulatory requirements.
- Replace/discontinue subjects with lower relevance.
- Merge subjects wherever feasible.
- Reducing number of credits for the courses having less relevance to the programme.
- Shifting of courses which are prerequisites to the related courses being offered in the programme.

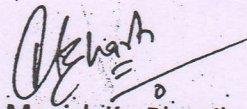
6. The detailed deliberations were made as per the agenda and the methodology. The existing programme structures and detailed syllabi of B.Tech and M.Tech programmes listed below were unanimously agreed and revised according to new credit requirements as mentioned in point no. 4 and the methodology explained in point no. 5.

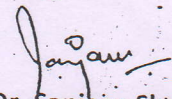


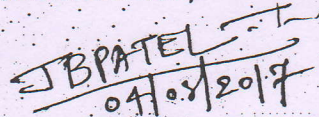
S.No.		Programme
1	B.Tech	Computer Science & Engineering
2		Information Technology Engineering
3		Software Engineering
4		Internet of Things
5		Electronics & Communication Engineering
6		Electrical & Electronics Engineering
7		Biomedical Engineering
8		Mechanical & Automation Engineering
9		Civil Engineering
10		Aerospace Engineering
11	M.Tech (Regular)	Computer Science & Engineering
12		Data Science
13		Artificial Intelligence & Robotics
14		Network & Cyber Security
15		Electronics & Communication Engineering
16		VLSI Design
17		Construction Technology & Management
18		Structural Engineering
19		Transportation Engineering
20		Environmental Engineering
21		Machine Design
22		Thermal Engineering
23		Industrial and Production Engineering

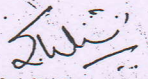
7. The revised programme structures and detailed syllabi are enclosed as Annexure.

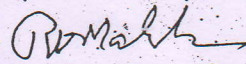
  
(Ms. Sakshi Sethi)

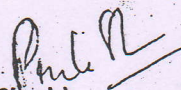
  
(Mr. Manish Kr. Bharti)

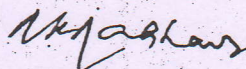
  
(Dr. Sanjeev Sharma)

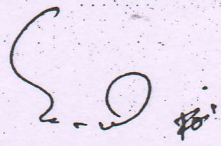
  
Prof. (Dr. Janak Patel)

  
(Dr. Shalini B. Bajaj)

  
(Dr. R.K. Malik)

  
(Dr. Priti Singh)

  
(Ashok Kr. Raghav)

  
(Maj. Gen. V.K. Narang (Retd.))

- Enclosed:
1. Comparison of existing programme structures with the revised programme structures.
  2. Suggestions and recommendations for the revised programme structures.
  3. Revised programme structures of B.Tech (Four Years) and M.Tech (Two Years) programmes.





**Amity University Haryana**  
**Amity School of Engineering and Technology**  
**Amity Institute of Information Technology**  
**MINUTES OF MEETING (BOARD OF STUDIES)**

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1. The Board of Studies Meeting was conducted in room no. 214 of C Block on 18<sup>th</sup>, July 2017 and on subsequent days to review the academic framework of five years integrated/dual degree programmes and two year M.Sc (NTM) programme with an aim to achieve the following:
  - To rationalize number of credits and contact hours for students to align with best practices and market demand.
  - To allow students' flexibility to pursue practical projects, industry certification, self study and group projects.
  - To ensure the relevance of programme by allowing students to pursue their specific interests.
2. The following were present :
  - (a) As Member of BOS - ASET :
    - (i) Maj Gen VK Narang (Retd.), Director ( ASET & AIIT) – Chairman BOS
    - (ii) Prof. Ashok Kumar Raghav, HOD (ASE) & Director – IRD
    - (iii) Dr. Priti Singh, Professor (ECE)
    - (iv) Dr. R.K. Malik, HOD (Civil Engineering)
    - (v) Dr. Shalini Bhaskar Bajaj, HOD (CSE)
    - (vi) Dr. Sanjeev Sharma, HOD (Mechanical Engineering)
    - (vii) Mr. Manish Kr. Bharti, Coordinator (ASE)
    - (viii) Ms. Sakshi Sethi, Assistant Professor (BME)  
*Coordinator*
  - (b) As Special Invitees
    - (i) Dr. Vivek Jaglan (Associate Professor, Department of CSE)
    - (ii) Dr. Vikas Thada (Associate Professor, Department of CSE)
    - (iii) Dr. Sunil Sikka (Associate Professor, Department of CSE)
    - (iv) Ms. Aman Jatain (Assistant Professor, Department of CSE)
    - (v) Mr. Ankit Garg (Assistant Professor, Department of CSE)
    - (vi) Mr. Ganesh Gupta (Assistant Professor, Department of CSE)
    - (vii) Dr. Rajesh Arora (Associate Professor, Department of ME)
    - (viii) Dr. Vineet Jain (Associate Professor, Department of ME)
    - (ix) Dr. Shiv Sharma (Assistant Professor, Department of ME)
    - (x) Dr. Naveen B.P. (Associate Professor, Department of CE)
    - (xi) Ms. Sakshi Gupta (Assistant Professor, Department of CSE)



- (xii) Mr. Lalit Kumar Yadav (Assistant Professor, Department of ME)
- (xiii) Dr. Prakhar Jindal (Assistant Professor, Department of ASE)
- (xiv) Mr. Yashil Handa (Assistant Professor, Department of BME)
- (xv) Mr. Anil Yadav (Assistant Professor, Department of ECE)

### 3. Agenda:

At the outset the Chairman welcomed all the members in attendance and explained the purpose of the Meeting. He then presented a brief overview on each of the following agenda issues to be taken up:-

- To rationalize number of credits and contact hours for students to align with best practices and market demand.
  - To allow students' flexibility to pursue practical projects, industry certification, self study and group projects.
  - To ensure the relevance of programme- by allowing students to pursue their specific interests.
4. To enhance the research & innovation activities for the students and to give more time to students for self study it is required to review the existing credit structure. In the institutes and universities of repute the requirement of number of credits for integrated/dual degree courses is very less than that for the programmes in ASET/AIIT. Taking the same into consideration it was unanimously decided in the meeting that the credit requirement is revised to 260 for integrated/dual programmes and 100 for M.Sc (NTM) programme respectively.

### 5. Methodology Followed:

- A balanced curriculum throughout all semesters in terms of credits to conform to the regulatory requirements.
  - Replace/discontinue subjects with lower relevance.
  - Merge subjects wherever feasible.
  - Reducing number of credits for the courses having less relevance to the programme.
  - Shifting of courses which are prerequisites to the related courses being offered in the programme.
6. The detailed deliberations were made as per the agenda and the methodology. The existing programme structures and detailed syllabi of integrated/dual degree programmes and M.Sc (NTM) programme listed below were unanimously agreed and revised according to new credit requirements as mentioned in point no. 4 and the methodology explained in point no. 5.




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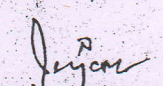
Annexure 1 (contains the programme structures of the programmes mentioned in the list below).

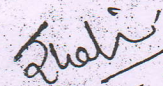
S.No.	
1	B.Tech CSE + MBA (either in Finance / Marketing / HR / IT / Operations Management)
2	B.Tech ECE + MBA (either in Finance / Marketing / HR / IT / Operations Management)
3	B.Tech ME + MBA (either in Finance / Marketing / HR / IT / Operations Management)
4	B.Tech +M.Tech (Data Science)
5	B.Tech +M.Tech (Artificial Intelligence & Robotics)
6	B.Tech +M.Tech (Network & Cyber Security)
7	M.Sc (Network Technology & Management)

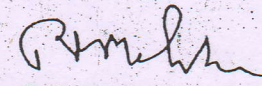
7. The revised programme structures and detailed syllabi are enclosed as Annexure.

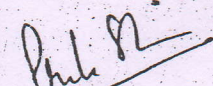
  
(Ms. Sakshi Sethi)

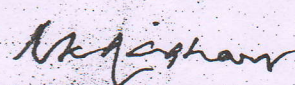
  
(Mr. Manish Kr. Bharti)


  
(Dr. Sanjeev Sharma)

  
(Dr. Shalini B. Bajaj)

  
(Dr. R.K. Malik)

  
(Dr. Priti Singh)

  
(Ashok Kr. Raghav)

  
(Maj. Gen. V.K. Narang (Retd.))

Enclosed: 1. Comparison of existing programme structures with the revised programme structures.  
2. Suggestions and recommendations for the revised programme structures.  
3. Revised programme structures of B.Tech+M.Tech (Five Years), B.Tech+MBA (Five Years), BCA+MCA (Five years) and M.Sc (NTM) Two Years programmes.



# Amity University Gurgaon

## Amity School of Engineering and Technology

### MINUTES OF 'BOARD OF STUDIES' MEETING

1. The Board of Studies Meeting was conducted in Room Number C-214, Second Floor, C- Block on July 20, 2017.

2. The following were present:

a) As Member of BOS - ASET :

- i) Maj. Gen. V. K. Narang (Retd.), Director ASET, AUH
- ii) Dr. A. K. Raghav, Director, IRD, AUH, Professor and Head, Dept. of ASE
- iii) Dr. Priti Singh, Director IQAC, Professor, Dept. of ECE & EEE
- iv) Dr. Sanjeev Sharma, Professor and Head, Dept. of ME
- v) Dr. R. K. Malik, Professor and Head, Dept. of CE
- vi) Dr. Shalini Bhaskar Bajaj, Professor and Head, Dept. of CSE, IT & AIIT

b) As Special Invitees

- i) Dr. Rajesh Arora, Associate Professor, Dept. of ME, ASET
- ii) Dr. Sunil Sikka, Assistant Professor, Dept. of CSE, ASET

3. Agenda

At the outset, Dr. A. K. Raghav and Dr. Sanjeev Sharma welcomed all the members present and briefed on the following agenda/s to be taken up:-

a) Introduction of "Eco-Friendly Energy and Power", "Advances in Fluid Dynamics" and "Advanced Material Science" courses for Ph.D. students

4. Details of deliberations and discussions held and decisions taken are covered in the subsequent paragraphs.

5. Introducing "Eco-Friendly Energy and Power" course for Ph.D. students

a) Dr. A. K. Raghav proposed that the course on "Eco-Friendly Energy and Power" be added to the list of existing courses being offered to Ph.D. students. This will help Ph.D. students interested in undertaking research in the field of eco-friendly energy and power generation techniques and application in power plants and other related areas. The course will help students learn and understand new and concepts in the field of eco-friendly fuels and techniques for energy generation, alternative and renewable energy and storage systems which they can later-use in their research. The course on eco-friendly energy and power has both contemporary relevance and increasing demand in both research and industry.

b) The course has five modules on eco-friendly energy, renewable energy, biofuels, combustion characteristics, advanced propulsion systems and powerplants covering different aspects of eco-friendly energy generation and utilization techniques.



## Amity University Gurgaon

### Amity School of Engineering and Technology

#### 6. Introducing "Advances in Fluid Dynamics" course for Ph.D. students

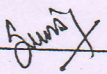
- a) Dr. A. K. Raghav further proposed that the course on "Advances in Fluid Dynamics" be also added to the list of existing courses being offered to Ph.D. students. This will help Ph.D. students interested in undertaking research in the field of fluid flow analysis, flow through ducts and other related domains of fluid dynamics. The course will help students learn and understand new concepts particularly focusing on the behaviour and characteristics of fluid flow at different speeds which they can later use in their research. The course on fluid dynamics has great relevance in industry and demand for critical research.
- b) The course has five modules on introductory aerodynamics, high speed compressible flow, boundary layer, turbulent flow and high Reynolds number flow covering different aspects of high subsonic and supersonic flow techniques utilized in aviation industry.

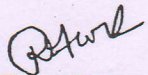
#### 7. Introducing "Advanced Material Science" course for Ph.D. students


- a) Dr. Sanjeev Sharma proposed that the course on "Advanced Material Science" be added to the list of existing courses being offered to Ph.D. students. This will help Ph.D. students interested in undertaking research in the field of Energy Storage, Nano Materials, smart material or related areas. The course will help students learn and understand new concepts in the field of material science specifically energy storage related properties which they can later use in their research. The course has relevance in both research and industry.
- b) The course has four modules based on Atomic structure of metals crystal structure, Engineering materials and their mechanical behavior, General principles of phase transformation and Principles and applications of heat treatment processes.

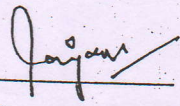
The Board of Studies recommends the aforementioned courses to be incorporated in the list of courses existing for the Ph.D. students to the Academic Council for approval.

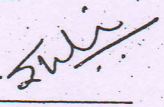
The meeting ended with vote of thanks to all present.

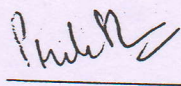
  
Dr. Sunil Sikka

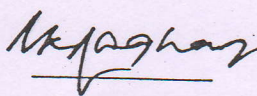
  
Dr. Rajesh Arora


  
Dr. R. K. Malik

  
Dr. Sanjeev Sharma

  
Dr. Shalini Bhaskar Bajaj

  
Dr. Priti Singh

  
Dr. A. K. Raghav

  
Maj. Gen. V. K. Narang (Retd.)



MINUTES OF 'BOARD OF STUDIES' MEETING

1. The Board of Studies Meeting was conducted in Room Number C-214, Second Floor, C- Block on November 20, 2017

2. The following were present:

a) As Member of BOS - ASET :

- i) Maj. Gen. V. K. Narang (Retd.), Director ASET, AUH
- ii) Dr. A. K. Raghav, Director, IRD, AUH, Professor and Head, Dept. of ASE
- iii) Dr. Priti Singh, Director IQAC, Professor, Dept. of ECE & EEE
- iv) Dr. Sanjeev Sharma, Professor and Head, Dept. of ME
- v) Dr. R. K. Malik, Professor and Head, Dept. of CE
- vi) Dr. Shalini Bhaskar Bajaj, Professor and Head, Dept. of CSE, IT & AIIT

b) As Special Invitees

- i) Dr. Vimal Kishor, Associate Professor, Dept. of BME, ASET
- ii) Mr. Sandeep Panwar Jogi, Assistant Professor, Dept. of BME
- iii) Ms. Sakshi Sethi, Program Coordinator, Assistant Professor, Dept. of BME, ASET

3. Agenda

At the outset, Director ASET welcomed all the members present and briefed on the agenda to be taken up, i.e revision of curriculum of the Tissue Engineering Lab of B.Tech Biomedical Engineering.

4. Director ASET called upon Dr. Vimal Kishor to present the revised curriculum along with the justification; the same is covered in the subsequent paragraph.
5. Revision of "Tissue Engineering Lab (BME2505)" curriculum for B.Tech BME students- Dr. Vimal Kishor proposed that the course of "Tissue Engineering Lab" needs to be revised as per the latest industrial requirements. This will help students to develop and refine rigorous and interactive laboratory experiences. The revision of course of Tissue Engineering lab has both contemporary relevance and increasing demand in both research and industry. The knowledge and skills gained in the course will provide students with the broad understanding of biomedical and the impact it makes on society.



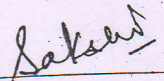
**Amity University Gurgaon**

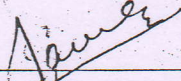
**Amity School of Engineering and Technology**

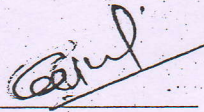
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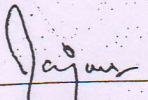
6. In view of the justification given above and the discussions held, all members unanimously agreed for the revised curriculum, a copy of which is attached as Appendix.

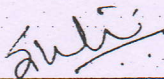
The meeting ended with vote of thanks to all present.

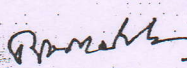
  
Ms. Sakshi Sethi

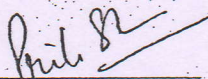
  
Mr. Sandeep Panwar Jogi

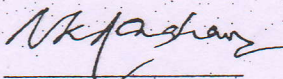
  
Dr. Vimal Kishor


  
Dr. Sanjeev Sharma

  
Dr. Shalini Bhaskar Bajaj

  
Dr. R.K Malik

  
Dr. Priti Singh

  
Dr. A. K. Raghav

  
Maj. Gen. V. K. Narang (Retd.)



**APPENDIX**

**Revised list of Experiments**

1. Sterilization experiment for tissue culture lab ingredients including culture medium, equipment, and other important components.
2. Preparation and sterilization of various types of culture medium for tissue engineering lab.
3. Cultivation of microorganism to understand various growth techniques and parameters.
4. Basic techniques for the cellular growth and harvesting.
5. Experimental methods to evaluate various parameters associated with the DNA quality and Quantity.
6. Transformation of microorganism by calcium chloride methods.
7. Fabrication and design of scaffolds by using Salt Leaching methods.
8. Fabrication and design of scaffolds by using Gas foaming methods.
9. Seeding, cultivation, and analysis of scaffolds by using human cultured cells.