NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL
P.O. SRINIVASNAGAR, MANGALURU-575025

MINUTES
OF THE
58ᵗʰ Meeting of the SENATE

Date   :   06.12.2021 (Monday)

Time   :   03:00PM Onwards

Through :   Google Meet
                        N.I.T.K., Surathkal
                        MANGALURU
                        PIN - 575 025

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Proceedings of the 58th Meeting (Through Google Meet) of the Senate of National Institute of Technology Karnataka, Surathkal held on December 06, 2021 (Monday) at 03:00 PM.

MEMBERS PRESENT:

Dr. K. Umamaheshwar Rao	....	Chairman
Dr. Ananthanarayana V. S.	....	Member
Prof. K.V. Jayakumar	....	External Member
Prof. N. C. Shivaprakash	....	External Member
Dr. (Ms.) Vidya Shetty K.	....	Member
Dr. M. S. Bhat	....	Member
Dr. K. S. Babu Narayan	....	Member
Dr. U Shripathi Acharya	....	Member
Dr. Vijay H. Desai	....	Member
Dr. Narendranath S.	....	Member
Dr. B M Dodamani	....	Member
Dr. Lakshman Nandagiri	....	Member
Dr. Subba Rao	....	Member
Dr. Dwarakish G S	....	Member
Dr. A. Mahesha	....	Member
Dr. (Mrs.) Amba Shetty	....	Member
Dr. P E Jagadeesh Babu (HoD)	....	Member
Dr. M.B. Saidutta	....	Member
Dr. Raj Mohan B	....	Member
Dr. Uday Kumar Dalimba (HoD)	....	Member
Dr. A. Chitharanjan Hegde	....	Member
Dr. A. Nityananda Shetty	....	Member
Dr. Badekai Ramachandra Bhat	....	Member
Dr. Denthaje Krishna Bhat	....	Member
Dr. Arun Mohan Isloor	....	Member
Dr. (Mrs.) B R Jayalekshmi	....	Member

Dr. M. C. Narasimhan	....	Member
Dr. Katta Venkataramana	....	Member
Dr. A.U. Ravi Shankar	....	Member
Dr. S. Shrihari	....	Member
Dr. Sitaram Nayak	....	Member
Dr. Subhash C Yaragal	....	Member
Dr. Shashidhar G Koolagudi (HoD)	....	Member
Dr. K. Chandrasekaran	....	Member
Dr. Annappa	....	Member
Dr. P. Santhi Thilagam	....	Member
Dr. Ashvini Chaturvedi	....	Member
Dr. Muralidhar Kulkarni	....	Member
Dr. T. Laxminidhi	....	Member
Dr. (Mrs.) Sumam David S.	....	Member
Dr. Neelavar Shekar Vittal Shet	....	Member
Dr. Gururaj S Punekar	....	Member
Dr. K Panduranga Vittal	....	Member
Dr. Udaykumar R Yaragatti	....	Member
Dr. B Venkatesa Perumal	....	Member
Dr. Shubhanga K N	....	Member
Dr. Jaidhar C D (HoD)	....	Member
Dr. G. Ram Mohana Reddy	....	Member
Dr. R Madhusudhan (HoD)	....	Member
Dr. A. Kandasamy	....	Member
Dr. Suresh M Hegde	....	Member
Dr. Santhosh George	....	Member
Dr. B. R. Shankar	....	Member
Dr. Murulidhar N. N.	....	Member
Dr. Shyam S. Kamath	....	Member
Dr. S. M. Kulkarni	....	Member
Dr. Ashok Babu T P	....	Member
Dr. S. M. Murigendrappa	....	Member
Dr. G. C. Mohan Kumar	....	Member
Dr. Gangadharan K. V.	....	Member
Dr. Shrikantha S. Rao	....	Member

Dr. Ravikiran Kadoli	....	Member
Dr. H. Suresh Hebbar	....	Member
Dr. K. Narayan Prabhu	....	Member
Dr. Jagannath Nayak	....	Member
Dr. Anandhan Srinivasan	....	Member
Dr. Udaya Bhat K.	....	Member
Dr. Aruna M (HoD)	....	Member
Dr. Ch. S. N. Murthy	....	Member
Dr. V. R. Sastry	....	Member
Dr. M. Govinda Raj	....	Member
Dr. Harsha Vardhan	....	Member
Dr. Ajith K M (HoD)	....	Member
Dr. N. K. Udayashankar	....	Member
Dr. (Mrs.) H. D. Shashikala	....	Member
Dr. M. N. Satyanarayan	....	Member
Dr. Rajesh Acharya H (HoD)	....	Member
Dr. Aloysius Henry Sequeira	....	Member
Dr. K. B. Kiran	....	Member
Dr. Shashikantha Koudur	....	Member
Chairman - CCC System Manager, CCC	....	Member
Dr. Mallikarjuna Angadi, Librarian	....	Member
Shri K. Ravindranath, Registrar	....	Secretary

MEMBERS ABSENT:

Prof. (Ms.) Anjula Gurtoo	....	External Member
Dr. Kiran G. Shirlal	....	Member
Dr. K. Swaminathan	....	Member
Dr. Varghese George	....	Member
Dr. John D'Souza	....	Member

National Institute of Technology Karnataka, Surathkal.

PREAMBLE:

At the outset of the meeting, Chairman welcomed all the members to the 58th Meeting of the Senate.

After a brief discussion, with the permission of the Chair, the Secretary Senate, began the deliberations on the Agenda Items.

Item No. 58.1: **Confirmation of the 57th meeting of the Senate held on Wednesday, October 20, 2021 through Google Meet at N.I.T.K., Surathkal – Reg.**

Resolution: The Senate resolved to confirm the minutes of the 57th Meeting of the Senate.

Item No. 58.2: **To consider the report on action taken on the minutes of 57th meeting of the Senate held on Wednesday, October 20, 2021 through Google Meet at N.I.T.K., Surathkal – Reg.**

Resolution: The action taken on the minutes of the 57th Senate meeting were noted.

Item No. 58.3: **To consider the items placed before the present (58th) meeting of the Senate to be held on Monday, December 06, 2021 at 03:00 PM through Google Meet - Reg.**

Item No. 58.3.1: **To consider the Agenda items discussed in the 36th Meeting of the Board of Studies (BoS) held on November 08, 2021 – Reg.**

36-BOS-1: **Modification in B. Tech Regulations**

The Senate discussed on the recommendations of BOS on the revisions in B.Tech regulations and Curriculum that are based on the proposals of the Committee to formulate the framework for implementation of NEP-2020 (To be effective from AY 2021-22).

Item title	Proposal of the Committee set up to formulate the framework for implementation of NEP-2020	BOS Resolutions on the Proposed Revision in B.Tech regulations and Curriculum	Resolution of the Senate
BoS 36.1.1 **Introdu-ction of liberal arts into B.Tech**	This is being done to impart multi-disciplinary and holistic education with no hard separations as proposed in the NEP 2020 document; the institute plans to introduce liberal arts along with making provisions for not drawing a rigid distinction between co-curricular and extra-curricular activities. Additional credits over and above degree requirement in the form of S/N may be introduced. Eg., if 150 credits are required for B.Tech, then it could be increased to make it 150+10. 10 for liberal arts, some of it could come from sports and club activities also. An alternate recommendation is that we can throw open the electives and students can get credits from MOOCs in liberal arts counted towards electives. This alternative would be beneficial, if we consider the other changes that are being proposed.	**The BOS resolved to recommend the introduction of a Mandatory Learning course (MLC) on Liberal arts courses/cocurricular/extracurricular activities"**. B.Tech students are required to earn **minimum 10 credits** under "Liberal arts courses/cocurricular/extracurricular activities" which are categorized as Mandatory Learning courses (MLC) . It is resolved to recommend that this course may be offered by Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities) functioning under Dean (Student Welfare). It is recommended that the course may be assigned a Course code of **SA 401**. The Liberal arts courses /cocurricular /extracurricular activities are recommended to be categorized as follows: **CATEGORY A :** Sports/club activities/organizing Institute level programmes/NSS - Maximum 3 credits may be earned under this category of activities with credit allocation as follows: • Participation in club activities /NSS/ competitions held by the club −1 credit per participation • Member of a Club -2 credits per membership • Organizing team members of Institute events like INCIDENT/Engineer /club office bearers -3 credits per membership	**The Senate resolved to approve the BoS recommendation on the Introduction of a Mandatory Learning course (MLC) on Liberal arts courses/cocurricular/extracurricular activities", with the following modifications:** B.Tech students are required to earn minimum 10 credits under "Liberal arts courses/cocurricular/extracurricular activities" which are categorized as Mandatory Learning courses (MLC) with a course code of SA401. **It is resolved that the course may consist of three categories given below wherein Category A and B may be offered/ coordinated by Department of Physical Education and Sports and Category C by School of Management.** The Liberal arts courses /cocurricular /extracurricular activities to be categorized as follows: **CATEGORY A :** Sports/club activities/organizing Institute level programmes/NSS - Maximum 3 credits may be earned under this category of activities with credit allocation as follows: • Participation in club activities /NSS/ competitions held by the club −1 credit per participation • Member of a Club -2 credits per membership • Organizing team members of Institute events like INCIDENT/Engineer /club office bearers -3 credits per membership

• Participation in state/National /International level competitions/paper presentation/Model building competitions -- 3 credits / participation All the certificates under this category are to be submitted by the student to Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities) clearly specifying the category for consideration, through the faculty advisor for the respective club/Committee and further to be approved by Dean (SW). **CATEGORY B: NCC or YOGA courses offered by the Institute - Maximum 3 credits.** Certificates under this category are to be submitted by the student to Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities) clearly specifying the category for consideration, through NCC Officer/Yoga Instructor of the Institute, as applicable and further to be approved by Dean (SW). **CATEGORY C:** Certified courses in Languages /Fine arts - Maximum 7 credits may be earned under this category. The certificates issued by authorized certification bodies to be submitted by the student to Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities) clearly specifying the category for consideration and further to be approved by Dean (SW).	• Participation in state/ National /International level competitions/paper presentation/Model building competitions -- 3 credits / participation All the certificates under this category are to be submitted by the student to Department of Physical Education and Sports clearly specifying the category for consideration, through the faculty advisor for the respective club/Committee and further to be approved by Dean (SW). **CATEGORY B: NCC or YOGA courses offered by the Institute - Maximum 3 credits.** Certificates under this category are to be submitted by the student to Department of Physical Education and Sports) clearly specifying the category for consideration, through NCC Officer/Yoga Instructor of the Institute, as applicable and further to be approved by Dean (SW). **CATEGORY C:** Certified courses in Languages /Fine arts - Maximum 7 credits may be earned under this category. The certificates issued by authorized certification bodies to be submitted by the student **to School of Management** clearly specifying the category for consideration . The courses/activities under "Liberal arts courses/co-curricular/ extra-curricular activities" may be taken during the period from 1st semester to 7th Semester B.Tech at student's convenience. However registration for these courses have to be done in the seventh semester. **The certificates may be submitted by the student to the Department of Physical Education and Sports/School of management as applicable with due forwards,**

		The courses/activities under "Liberal arts courses/co-curricular/ extra-curricular activities" may be taken during the period from 1st semester to 7th Semester B.Tech at student's convenience. However registration for these courses have to be done in the seventh semester. The certificates may be submitted by the student to the Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities)with due forwards, recommendations and approvals from the appropriate authority as specified above. The procedure and the time of submission of the certificates may be framed by the Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities)with approval from Dean(SW). A consolidated grade sheet for all the registered students for each of the B Tech programme, mentioning the credits earned in each category and the total credits with S/N grades may be sent in a prescribed format to the to the Office of Dean (Academic) by the Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities)with approval from Dean(SW). The prescribed format may be made available in Curriculum book.	**recommendations and approvals from the appropriate authority as specified above.** **The consolidated credits earned by all the registered students for each of the B Tech programme, mentioning the credits earned in Category A and B to be sent by Department of Physical Education and Sports with approval from Dean (SW) to Office of Dean (Academics).** **The consolidated credits earned by all the registered students for each of the B Tech programme, mentioning the credits earned in Category C to be sent by School of Management to Office of Dean (Academics).** **The implementation procedure, the time of submission of the certificates etc. and guidelines for the consolidation of credits and grades may be framed by the Dean(SW), School of Management and Dean (Academics).** **The Senate also resolved to recommend the change of name of the School of Management to School of Humanities, Social Sciences and Management.**
BOS 36.1.2 Introduction of corner stone, Capstone project	To inculcate creativity and critical thinking to encourage logical decision-making and innovation it is proposed to encourage students to take up corner stone projects which shall culminate in Capstone projects. In many departments	**The BOS resolved to recommend the introduction of a cornerstone/capstone project in the curriculum, offered as an elective with 4 credits.** For such projects, the student has to register in his/her department in the beginning of 3rd semester. The registration details of such students are to	**The Senate resolved to approve the BoS recommendation.**

	there are students who on their own volition, do projects from second year onwards, even working through summer holidays. This may be encouraged so that students at an early stage can come up with ideas, work on them through the years and make it into a successful one which could later be a seed to a startup. Every department should encourage students to take up such corner stone projects which could culminate in a cap stone project. To incentivize students to take up such projects, credits may be assigned and set against electives.	be maintained in the Department. The student should work on this project from 3rd semester to 7th semester. The student has to submit a report to the department at the end of every semester and present the work progress to a duly constituted committee. Formally the registration for this course has to be done in the seventh semester and the student has to submit a final report at the end of seventh semester. The assessment will be done at the end of seventh semester by a duly constituted committee at the department level, with the guide as a member. This course may have a course code specified by the Department.	
BOS 36.1.3 Introduction of a Design course in the first year	To enhance creativity and critical thinking, it is proposed to include engineering design at the entry level so that the students learn the process of creating something and also learn how to make it happen. This enhances both their creativity and critical thinking.	**The BOS resolved to recommend the introduction of a Mandatory learning course on Introduction to Design Thinking (ME 100): (2-0-0) 2 Credits.** This course will be coordinated by Mechanical Engg. Department, with course instructors from the various B.Tech Programme offering Departments. The student is required to complete this course during 1st/ 2nd semester.	**The Senate resolved to approve the BoS recommendation.**
BOS 36.1.4 Introduction of 'MINOR' in niche areas.	Eg., in Machine Learning, in Data Science, in Automobile engineering, to name a few. This would also provide flexibility for students to choose their programs according to their talents. Extending on this idea of another Minor being offered by departments, E&C can offer one in Communication, E&E can offer one in Embedded Systems, CH in Biotechnology, CSE on Cyber Security, cloud computing, computer k,	**The BOS resolved to recommend the provision of the following three types of Minor programmes** in the curriculum **A student in a particular discipline can take additional specified courses totaling 15 to 20 credits for,** (a) **Minor in other disciplines where all the courses are offered by a department other than his/her parent department** **or**	**The Senate resolved to approve the BoS recommendation.**

	SOM on Economics, MACS on Data Science, CV in Structures, Geotechnical, Transportation, Remote sensing, water resources, marine structures; ME on thermal sciences, Mechatronics, automobile engineering, etc. This list is only indicative and not exhaustive.	**(b) Interdisciplinary Minor where courses are offered by two or more departments and may be opted by student of any discipline** or **(c) Minor in Niche areas in his/her parent discipline**	
BOS 36.1.5 Introduction of Python programming	Python programming may be introduced to first year students instead of C programming, as most of the B.Tech students require exposure to application software domain rather than system software domain, except in the case of CSE and IT. The course could be Introduction to programming and data structures	Presently, the following Computer programming courses are to be completed by all the students in 1st /2nd semesters of B.Tech under Engineering Science Core CS110 Computer Programming (3-1-0) 4 CS111 Computer Programming Lab (0-0-2)1 **The BOS resolved to recommend that the departments** may be given an option of specifying a set among the following sets of two courses as part of Computer programming courses at the first year level under Engineering Science Core for the B. Tech programme offered by their Department: Set 1 (The existing Computer Programming theory and lab courses which are renamed and with restructured L-T-P credits) CS 110 C Programming (3-0-0) 3 CS111 C Programming Lab (0-0-3) 2 Set 2 CS 100 Python programming (3-0-0) 3 CS 101 Python programming lab (0-0-3) 2	**The Senate resolved to approve the BoS recommendation.**

The Senate considered and appreciated the efforts and work of the Committee constituted to formulate the framework for implementation of NEP-2020 and placed its appreciation on Record.

36-BOS-2: Modification in B. Tech Regulations:

The Senate deliberated on the following modifications in the Clauses in Regulations/Inclusion of syllabus for the newly introduced courses in the Curriculum recommended by BOS to accommodate the recommendations of the Committee to formulate the framework for implementation of NEP-2020 (To be effective from AY 2021-22).

Item	Existing	BOS Resolution	Senate Resolution
BOS.36.2.1 Changes B.Tech Course structure: Modification in Clause 3.1	Curriculum 2020 – B.Tech Regulations :Clause 3.1. The total course package for a B.Tech Degree Programme will typically consist of the following components. **(a) Foundation Courses FC 38 –50 Credits** A Foundation Course can be any of the following: Basic Science Core Courses (BSC), Engineering Science Core Courses (ESC), and Humanities and Social Science Core Courses (HSC) (b) Programme Core Courses PC ≥ 60 Credits (c) Elective Courses ELE ≥ 20 Credits An Elective Course can be any of the following: Programme Specific Electives (PSE), Certified MOOCs (NPTEL/SWAYAM etc.) and Mini Projects. (d) Project (Mini Projects and Major Project) MP 4 - 6 Credits (e) Mandatory Learning Courses MLC **5 Credits** **The Minimum Credit Requirement for the B.Tech Degree is 150 to 160**	In order to facilitate the Introduction of "Liberal arts courses /cocurricular / extracurricular activities" as MLC course with 10 credit requirement, a MLC on Introduction to Design Thinking, **BOS resolved and recommended** that the minimum Total Credit requirement for B.Tech Programme may be increased from the present range of 150-160 to 160-170 credits. The MLC credit requirement may be increased from 5 credits to 16 credits **BOS recommended the following Changes in Clause 3.1 - B.Tech Regulations from AY 2021-22** The total course package for a B.Tech Degree Programme will typically consist of the following components. (a) Foundation Courses FC 38 –50 Credits A Foundation Course can be any of the following: Basic Science Core Courses (BSC), Engineering Science Core Courses (ESC), and Humanities and Social Science Core Courses (HSC) (b) Programme Core Courses PC ≥ 60 Credits (c) Elective Courses ELE ≥ 20 Credits An Elective Course can be any of the following: Programme Specific Electives (PSE), Certified MOOCs (NPTEL/SWAYAM etc.), Mini Projects **and Cornerstone /capstone project.**	**The Senate resolved to approve the BoS recommendations.**

		(d) Project (Mini Projects and Major Project) MP 4 - 6 Credits (e) Mandatory Learning Courses MLC **16 Credits** **The Minimum Credit Requirement for the B.Tech Degree is 160 to 170**	
BOS.36.2.2 **Modificat-ion in Clause 3.2**	**Curriculum 2020 - B.Tech Regulations : Clause 3.2.** The students have the option to register for certified MOOC courses (NPTEL/SWAYAM etc.) limited to 5 credits. **Project (MP)** Project work may consist of Major Project and Mini Projects (optional) offered by parent department. The Major Project is a course with 4- 6 credits and can comprise of Part I and Part II, spread over 1 or 2 semesters of final year, preferably during 7th and 8th semesters. DUGC may prescribe Mini Project as a requirement for the B. Tech Degree or in lieu of equivalent elective credits. The method of evaluation for major and minor projects shall be evolved by pertinent DUGC and appropriate double-letter grade is awarded which will be considered for SGPA and CGPA calculation **Mandatory Learning Courses:** These are courses that must be completed by the student at appropriate time. The 'S' grade is awarded for satisfactory completion of the course and 'N' grade is awarded for non-completion of the course. The 'S' and 'N' grades do not carry grade-points and hence not included in the SGPA, CGPA computations Courses that come under this category are the following: (a) ***Environmental Studies:*** This is a 1 credit course, coordinated by Department of Civil Engineering and the student is required to complete	**The BOS resolved to recommend the following modification in Curriculum – B.Tech Regulations : Clause 3.2 from AY 2021-22** **Certified MOOC courses** The students have the option to register for certified MOOC courses (NPTEL/SWAYAM etc.) **limited to 8 credits for their elective credit requirement.** **The students also have the option to register for certified MOOC courses (NPTEL /SWAYAM etc.), limited to 7 credits for MLC credit requirement towards the completion of the MLC course on "Liberal arts courses/ cocurricular / extracurricular activities".** **Credits earned through certified courses will not be used for SGPA/CGPA computations. However, these credits will be considered for elective/MLC credits requirements of the programme.** **A student must provide all the details (original or attested authentic copies) such as course content, number of contact hours, course instructor and evaluation system for the certified course which he/she requests to be considered in order to fulfil the designated credit requirement.** **These details will be evaluated by the concerned DUGC (for Elective credit requirement) before giving the approval. The DUGC will then decide the**	**The Senate resolved to approve the BoS recommendation with the following modifications.** **Certified MOOC courses** The students have the option to register for certified MOOC courses (NPTEL/SWAYAM etc.) limited to 8 credits for their elective credit requirement. The students also have the option to register for certified MOOC courses (NPTEL /SWAYAM etc.), limited to 7 credits for MLC credit requirement towards the completion of the MLC course on "Liberal arts courses/ cocurricular / extracurricular activities". Credits earned through certified courses will not be used for SGPA/CGPA computations. However, these credits will be considered for elective/MLC credits requirements of the programme. A student must provide all the details (original or attested authentic copies)

	this course during 1st / 2nd semester (b) Professional Ethics and Human Values: This is a 1 credit course, coordinated by School of Management and the student is required to complete this course during 1st/ 2nd semester (c) *Seminar:* The student will make presentations on topics of academic interest (d) *Practical Training:* The student may complete the training before the beginning of the 7th semester (or as stipulated by the DUGC) and register for it in 7th Semester. The duration and the details shall be decided by the Faculty Advisor with approval from DUGC	**number of equivalent credits the student will get for such course(s) in NITK. The complete details will then be forwarded to Dean (A) for approval.** **The details of MOOC courses towards Category C of MLC course on Liberal arts courses/ cocurricular/ extracurricular activities" will be evaluated by Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities) and it will then decide the number of equivalent credits the student will get for such course(s) in NITK. The complete details will then be forwarded to Dean (A) for approval with recommendations of Dean (SW).** Project (MP) Project work may consist of Major Project and Mini Projects (optional) offered by parent department. The Major Project is a course with 4- 6 credits and can comprise of Part I and Part II, spread over 1 or 2 semesters of final year, preferably during 7th and 8th semesters. DUGC may prescribe Mini Project as a requirement for the B. Tech Degree or in lieu of equivalent elective credits. The method of evaluation for major and minor projects shall be evolved by pertinent DUGC and appropriate double-letter grade is awarded which will be considered for SGPA and CGPA calculation **Cornerstone/capstone Project:** **The students have the option to register for Cornerstone/capstone Projects offered by departments as an elective.** **For such a project, the student has to register in his/her department in the beginning of**	such as course content, number of contact hours, course instructor and evaluation system for the certified course which he/she requests to be considered in order to fulfil the designated credit requirement. These details will be evaluated by the concerned DUGC (for Elective credit requirement) before giving the approval. The DUGC will then decide the number of equivalent credits the student will get for such course(s) in NITK. The complete details will then be forwarded to Dean (A) for approval. The details of MOOC courses towards Category C of MLC course on Liberal arts courses/ cocurricular/ extracurricular activities" **will be evaluated by School of Management and it will then decide the number of equivalent credits the student will get for such course(s) in NITK. The complete details will then be forwarded to Dean (A) for approval .** Project (MP) Project work may consist of Major Project and Mini Projects (if specified by the Department) offered by parent department. The Major Project is a course with 4- 6 credits and can comprise of Part I and

3rd semester. The registration details of such students are to be maintained in the Department. The student has to work on this project under the supervision of a faculty member from 3rd semester to 7th semester. The student has to submit a report to the department at the end of every semester and work progress may be assessed by a duly constituted committee at the department level, with the guide as a member at the end of every semester. Formally the registration for this course has to be done in the seventh semester and the student has to submit a final report at the end of seventh semester. The assessment to be done at the end of seventh semester by a duly constituted committee at the department level, with the guide as a member.

Mandatory Learning courses:
These are courses that must be completed by the student at appropriate time. The 'S' grade is awarded for satisfactory completion of the course and 'N' grade is awarded for non-completion of the course. The 'S' and 'N' grades do not carry grade-points and hence not included in the SGPA, CGPA computations.

Courses that come under this category are the following:
(a) *Environmental Studies:* This is a 1 credit course, coordinated by Department of Civil Engineering and the student is required to complete this course during 1st / 2nd semester.
(b) *Professional Ethics and Human Values:* This is a 1 credit course, coordinated by School of Management and the student is required to complete this course during 1st/ 2nd semester
(c) *Seminar:* **1 credit.** The student will make presentations on topics of academic interest.
(d) ***Practical Training:*** **1 Credit.** The student may complete the training before the beginning of the 7th semester

Part II, spread over 1 or 2 semesters of final year, preferably during 7th and 8th semesters. DUGC may prescribe Mini Project as a requirement for the B. Tech Degree or in lieu of equivalent elective credits. The method of evaluation for major and mini projects shall be evolved by pertinent DUGC and appropriate double-letter grade is awarded which will be considered for SGPA and CGPA calculation

Cornerstone/capstone Project:
The students have the option to register for Cornerstone/capstone Projects offered by departments as an elective.
For such a project, the student has to register in his/her department in the beginning of 3rd semester. The registration details of such students are to be maintained in the Department. The student has to work on this project under the supervision of a faculty member from 3rd semester to 7th semester. The student has to submit a report to the department at the end of every semester and work progress may be assessed by a duly constituted committee at the department level, with the guide as a member at the end of every semester.

(or as stipulated by the DUGC) and register for it in 7th Semester. The duration and the details shall be decided by the Faculty Advisor with approval from DUGC.

(e) Introduction to Design Thinking (ME 100): (2-0-0) 2 Credits.
This course will be coordinated by Department of Mechanical Engg., with course instructors from the various B.Tech Programme offering Departments. **The student is required to complete this course during 1st/ 2nd semester.**

(f) "Liberal arts courses /co-curricular/extracurricular activities": This is a 10-credit course. The students are required to earn minimum 10 credits under "Liberal arts courses/co-curricular /extracurricular activities"
The Liberal arts courses/ cocurricular/extra-curricular activities may be categorized as follows:
CATEGORY A: Sports/club activities/organizing Institute level programmes/NSS - Maximum 3 credits may be earned under this category of activities with credit allocation as follows:

- **Participation in club activities /NSS/ competitions held by the club –1 credit per participation**
- **Member of a Club -2 credits per membership**
- **Organizing team members of Institute events like INCIDENT/ Engineer/club office bearers - 3 credits per membership**
- **Participation in state/National /International level competetions / paper presentation/Model building competitions –3 credits/ participation**

All the certificates under this category are to be submitted by the student to Department of

Formally the registration for this course has to be done in the seventh semester and the student has to submit a final report at the end of seventh semester. The assessment to be done at the end of seventh semester by a duly constituted committee at the department level, with the guide as a member.

Mandatory Learning courses:
These are courses that must be completed by the student at appropriate time. The 'S' grade is awarded for satisfactory completion of the course and 'N' grade is awarded for non-completion of the course. The 'S' and 'N' grades do not carry grade-points and hence not included in the SGPA, CGPA computations.

Courses that come under this category are the following:
(a) *Environmental Studies:* This is a 1 credit course, coordinated by Department of Civil Engineering and the student is required to complete this course during 1st / 2nd semester.
(b) *Professional Ethics and Human Values:* This is a 1 credit course, coordinated by School of Management and the student is required to complete this

Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities) clearly specifying the category for consideration, through the faculty advisor for the respective club/Committee and further to be approved by Dean (SW).

CATEGORY B: NCC or YOGA courses offered by the Institute - Maximum 3 credits. The certificates under this category are to be submitted by the student to Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities) clearly specifying the category for consideration, through NCC Officer/Yoga Instructor of the Institute, as applicable and further to be approved by Dean (SW).

CATEGORY C: Certified courses in Languages /Fine arts - Maximum 7 credits may be earned under this category. The certificates issued by authorized certification bodies to be submitted by the student to Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities) clearly specifying the category for consideration and further to be approved by Dean (SW).

The courses/activities under "Liberal arts courses/co-curricular/extracurricular activities" may be taken during the period from 1st semester to 7th Semester B.Tech at student's convenience. However registration for these courses have to be done in the seventh semester. The certificates may be submitted by the student to the Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities)with due

course during 1st/ 2nd semester
(c) *Seminar:* 1 credit. The student will make presentations on topics of academic interest.
(d) *Practical Training:* 1 Credit. The student may complete the training before the beginning of the 7th semester (or as stipulated by the DUGC) and register for it in 7th Semester. The duration and the details shall be decided by the Faculty Advisor with approval from DUGC.

(e) Introduction to Design Thinking (ME 100): (2-0-0) 2 Credits.
This course will be coordinated by Department of Mechanical Engg., with course instructors from the various B.Tech Programme offering Departments. The student is required to complete this course during 1st/ 2nd semester.
(f) "Liberal arts courses /co-curricular/extracurricular activities": This is a 10-credit course. The students are required to earn minimum 10 credits under "Liberal arts courses/co-curricular /extracurricular activities"
The Liberal arts courses/ cocurricular/extra-curricular activities may be categorized as follows:

| | | forwards, recommendations and approvals from the appropriate authority as specified above.
The procedure and the time of submission of the certificates may be framed by the Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities)with approval from Dean(SW).
 A consolidated grade sheet for all the registered students for each of the B Tech programme, mentioning the credits earned in each category and the total credits with S/N grades may be sent in a prescribed format to the Office of Dean (Academics) by the Department of Physical Education and Sports (Proposed to be renamed as Department of Physical Education, Sports and Student activities)with approval from Dean(SW). | CATEGORY A: Sports/club activities/organizing Institute level programmes/NSS - Maximum 3 credits may be earned under this category of activities with credit allocation as follows:
• Participation in club activities /NSS/ competitions held by the club – 1 credit per participation
• Member of a Club -2 credits per membership
• Organizing team members of Institute events like INCIDENT/ Engineer/club office bearers - 3 credits per membership
• Participation in state/National /International level competitions / paper presentation/Model building competitions –3 credits/ participation

All the certificates under this category are to be submitted by the student to Department of Physical Education and Sports clearly specifying the category for consideration, through the faculty advisor for the respective club/Committee and further to be approved by Dean (SW).

CATEGORY B: NCC or YOGA courses offered by the |

			Institute - Maximum 3 credits. The certificates under this category are to be submitted by the student to Department of Physical Education and Sports clearly specifying the category for consideration, through NCC Officer/Yoga Instructor of the Institute, as applicable and further to be approved by Dean (SW). **CATEGORY C: Certified courses in Languages /Fine arts - Maximum 7 credits may be earned under this category.** The certificates issued by authorized certification bodies to be submitted **by the student to School of Management clearly specifying the category for consideration.** The courses/ activities under "Liberal arts courses/co-curricular/ extra-curricular activities" may be taken during the period from 1st semester to 7th Semester B.Tech at student's convenience. However registration for these courses have to be done in the seventh semester. **The certificates may be submitted by the student to the Department of Physical Education and Sports/School**

			of management as applicable with due forwards, recommendations and approvals from the appropriate authority as specified above. The consolidated credits earned by all the registered students for each of the B Tech programme, mentioning the credits earned in Category A and B to be sent by Department of Physical Education and Sports with approval from Dean (SW) to Office of Dean (Academics). The consolidated credits earned by all the registered students for each of the B Tech programme, mentioning the credits earned in Category C to be sent by School of Management to Office of Dean (Academics).
BOS.36.2.3 Deletion of Clause 3.4	Curriculum 2020 -B .Tech Regulations: Clause 3.4. *Co-curricular and/or Extra-curricular activities*: These are noncredit courses, with multiple options, to be completed at student's convenience. The student shall complete *a total of at least 2* items (with *at least one from each of the two groups*) described below. On successful completion, a *certificate* regarding the activity that a student has participated in, may be issued by the Faculty in-charge of that particular activity. With the recommendation of the Faculty in-charge of Co-Curricular / Extra-Curricular Activities, the	In view of inclusion of "Liberal arts courses /co-curricular/ extracurricular activities" in Clause 3.2, The BOS resolved to recommend the deletion of Clause 3.4 in Curriculum 2020-B.Tech Regulations from the AY-2021-22.	The Senate resolved to approve the BoS recommendation.

	Dean (Students Welfare) may approve the **Report of Satisfactory Completion of such Co-Curricular and Extra-Curricular Activities.** The Co-curricular/Extra-curricular Activities are compulsory degree requirements. **Group 1: Co-Curricular Activities,** which includes activities in professional societies like IEEE, ISTE, IE, CSI, Department Associations, Lab development, Participation in Paper Presentation, Model Building, etc. **Group 2: Extra-Curricular Activities,** such as NSS, NCC, NSO, Community Services, Social work, Yoga, Meditation, Language Course, Health Care Services, Activities in Alumni Association, Activities in *INCIDENT, Engineer,* Participation in Sports, Games, Various Clubs of Institute, SPICMACAY, etc.		
BOS.36.2.4 Modification in Clause 3.5	**Curriculum 2020 -B.Tech Regulations : Clause 3.5** **Lower and Upper Limits for Course Credits Registered in a Semester/Session, by a Full time Student of the B.Tech. Degree Programme:** A full time student of the B.Tech. degree programme must register for a minimum of 12 credits, and up to a maximum of 30 credits. However the minimum/maximum credit limit can be relaxed by the Dean (Academic) on the recommendations of the DUGC, only under extremely exceptional circumstances. The maximum credits that a student can register in a Summer session is 16.	**The BOS resolved to recommend the following modifications in Clause 3.5 of B.Tech Regulations in Curriculum 2020 from AY 2021-22** **Lower and Upper Limits for Course Credits Registered in a Semester/Session, by a Fulltime Student of the B.Tech. Degree Programme:** A full time student of the B.Tech. Degree programme must register for a minimum of 12 credits, and up to a maximum of 30 credits. However the minimum/maximum credit limit can be relaxed by the Dean (Academic) on the recommendations of the DUGC, only under extremely exceptional circumstances. The maximum credits that a student can register in a summer session is 16. **The 10 credits of Liberal arts courses, extra-curricular and**	**The Senate resolved to approve the BoS recommendation with the following modification:** Lower and Upper Limits for Course Credits Registered in a Semester/Session, by a Fulltime Student of the B.Tech. Degree Programme: A full time student of the B.Tech. Degree programme must register for a minimum of 12 credits, and up to a maximum of 30 credits. However the minimum/maximum credit limit can be relaxed by the Dean (Academic) on the recommendations of the DUGC, only under extremely exceptional circumstances. The

		co-curricular activities (Registered in the 7th semester) are exempted from the count towards the minimum and maximum limit of credits per semester.	maximum credits that a student can register in a summer session is 16. The 10 credits of Liberal arts courses, extra-curricular and co-curricular activities (Registered in the 7th semester) **and the MOOC curses** are exempted from the count towards the minimum and maximum limit of credits per semester.
BOS.36.2.5 **Modification in first year course list and suggested plan of study**	**First Year Bachelor of Technology** **List of Courses Common to All Undergraduate Programmes** **Foundation Courses (FC)** **Basic Science Core (BSC)** MA110 Engineering Mathematics(3-0-0) 3 – I MA111 Engineering Mathematics(3-0-0) 3 –II PH110 Physics (3-1-0) 4 PH111 Physics Laboratory (0-0-2) 1 CY110 Chemistry (3-0-0) 3 CY111 Chemistry Laboratory (0-0-3) 2 **Engineering Science Core (ESC)** WO110 Engineering Mechanics (3-0-0) 3 ME111 Engineering Graphics (1-0-3) 3 CS110 Computer Programming (3-1-0) 4 CS111 Computer Programming (0-0-2) 1 Lab **Humanities and Social Science Core (HSC)** SM110 Professional (3-0-0) 3 Communication **Mandatory Learning Courses (MLC)** CV110 Environmental Studies (1-0-0) 1 SM111 Professional Ethics and Human Values (1-0-0) 1 EC100 Elements of Electronics an Communication Engineering (2-0-0)2 (For Computer Science, Mechanical, Civil, Mining, Metallurgy, Chemical Engineering branches only) EE110 Elements of Electrical Engineering (2-0-0)2 (For Computer Science, Mechanical, Civil, Mining, Metallurgy, Chemical Engineering branches only) ME110 Elements of Mechanical Engineering (2-0-0)2 (For Computer Science, IT, E &C, E & E, Civil, Mining, Metallurgy, Chemical Engineering branches only)	The BOS resolved to recommend the following modification in the First Year curriculum as proposed. **First Year Bachelor of Technology** **List of Courses Common to all Undergraduate Programmes** **Foundation Courses (FC)** **Basic Science Core (BSC)** MA110 Engineering Mathematics – I (3-0-0) 3 MA111 Engineering Mathematics – II (3-0-0) 3 PH110 Physics (3-1-0) 4 PH111 Physics Laboratory (0-0-2) 1 CY110 Chemistry (3-0-0) 3 CY111 Chemistry Laboratory (0-0-3) 2 **Engineering Science Core (ESC)** WO110 Engineering Mechanics (3-0-0) 3 ME111 Engineering Graphics (1-0-3) 3 **Humanities and Social Science Core (HSC)** SM110 Professional Communication (3-0-0) 3 **Mandatory Learning Courses (MLC)** CV110 Environmental Studies (1-0-0) 1 SM111 Professional Ethics and Human Values (1-0-0) 1 **ME 100 Introduction to Design (2-0-0) 2 Thinking** **Other courses under Engineering Science core (ESC)** **Computer Programming courses under ESC (Set 1 or Set 2 as specified by the Department offering the B.Tech Programme)** **Set 1** **CS110** **C Programming (3-0-0) 3** **CS111**	**The Senate resolved to approve the BoS recommendation**

		C Programming Lab (0-0-3) 2 OR	

Set 2

CS 100   Python Programming   (3-0-0) 3

CS101   Python Programming Lab   (0-0-3) 2

EC 100   Elements of Electronics and Communication Engineering   (2-1-0) 2
(For Mechanical, Civil, Mining, Metallurgy, Chemical Engineering branches only)

EE110   Elements of Electrical Engineering   (2-0-0) 2
(For Mechanical, Civil, Mining, Metallurgy, Chemical Engineering branches only)

ME110   Elements of Mechanical Engineering   (2-0-0) 2
(For IT, AI, E &C, E & E, Civil, Mining, Metallurgy, Chemical Engineering branches only)

Suggested plan of study for Iˢᵗ year (BOS Annexure I)

BOS.36.2.6 Minor Programme in B.Tech: **Modification in Clause 3.7.**	**Curriculum 2020 -B .Tech Regulations :Clause 3.7. Minor programme in B Tech** a) A student in a particular discipline can take additional specified courses totaling 15 to 20 credits in other disciplines. If he/she gets a GPA of 7.0 in these courses, then it will find a mention in their grade cards and degree certificate. b) A student can opt for Minors in Third Semester and register for Minor Courses (Mn) from Third to Eighth Semesters. Students who have cleared all the courses of first and second semester in first attempt and have obtained a CGPA ≥ 7 and GPA (of common courses in the first year) ≥ 7.0 are eligible to register for minor courses. c) Allotment of minor will be based on merit list	**The BOS resolved to recommend the following modification in Curriculum 2020-B.Tech Regulations : Clause 3.7 from AY 2021-22.** **Minor programme in B Tech** **A) A student in a particular discipline can take additional specified courses totaling 15 to 20 credits for,** **a)** **Minor in other disciplines where all the courses are offered by a department other than his/her parent department** **or** **b)** **Interdisciplinary Minor where courses are offered by two or more departments** **or** **c)** **Minor in Niche areas in their parent discipline** A) If he/she gets a GPA of 7.0 in these courses, then it will find a mention in their grade cards and degree certificate. B) A student can opt for Minors in Third Semester and register	The Senate resolved to approve the BoS recommendation

	prepared on the basis of GPA of common courses in the first year. d) In case a student does not get a GPA of 7.0 in minor courses, then these courses can be counted towards their elective credit requirement.	for Minor Courses (Mn) from Third to Eighth Semesters. Students who have cleared all the courses of first and second semester in first attempt and have obtained a CGPA ≥ 7 and GPA (of common courses in the first year) ≥ 7.0 are eligible to register for minor courses. C) Allotment of minor will be based on merit list prepared on the basis of GPA of common courses in the first year. D) In case a student does not get a GPA of 7.0 in minor courses, then these courses can be counted towards their elective credit requirement.	
BOS.36.2.7 Course Syllabus for **ME 100 Introductio n to Design Thinking** Proposed by Department of Mechanical Engineering	-	**The BOS resolved to recommend** the course syllabus for **ME 100 Introduction to Design Thinking** proposed by the Department of Mechanical Engineering. BOS **Annexure IV Page 41-44**	**The Senate resolved to approve the BoS recommendation**
BOS.36.2.8 Course Syllabus for **CS 100** Python programming and CS 111 Python programming lab **Proposed by Department of Computer Science and Engineering**	-	**The BOS resolved to recommend** the course syllabus proposed by the Department of Computer Science and Engineering for the following courses CS 100 Python programming (3-0-0) 3 CS 101 Python programming lab (0-0-3) 2 BOS **Annexure VII Page 23-28**	**The Senate resolved to approve the BoS recommendation**
BOS.36.2.9 Introduction of an Inter-disciplinary Minor in "Machine learning"		**The BOS resolved to recommend the proposal** to introduce an **Interdisciplinary Minor in "Machine learning"** with five courses, out of which four compulsory courses being offered by the Departments of IT (one course), CSE (one course) and MACS (two courses) and a fifth course which is discipline specific to be offered by	**The Senate resolved to approve the BoS recommendation**

		students' parent department. The proposal of the committee involving representatives from all the nine departments offering B.Tech programmes and the Department of MACS on the minor programme structure, the list of courses and the course syllabus is attached. BOS **Annexure II Page 1-28**	

ITEM No.: 36-BOS-3: Proposal of Department of Chemistry : Inclusion of a new self study course CY912: Materials Chemistry for Ph.D program.

Resolution of the BoS	Resolution of the Senate
BOS resolved to recommend the proposal of Department of Chemistry for inclusion of a new self-study course "CY 912: Materials Chemistry" in the Ph.D curriculum. BOS **Annexure XII Page 1-3**	The Senate resolved to approve the BoS recommendation.

ITEM No.: 36-BOS-4:   Proposals of Dept. of Civil Engineering

(a) Introduction of Elective courses for B.Tech programme.	
Resolution of the BoS	**Resolution of the Senate**
BOS resolved to recommend the inclusion of the following electives in the list for UG programme. i) CV325 Structural Masonry and Alternative Building Technologies (3-0-0)3 ii) CV376 Disaster Management with Spatial Method (3-0-0)3 The details are enclosed as BOS **Annexure III Page 28-29**	The Senate resolved to approve the BoS recommendation.

(b) Change of Course code of existing course in the B.Tech curriculum

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of Department of Civil Engineering to change of Course code of existing elective course from CV476 Disaster Management and Mitigation to CV326. The details are enclosed as BOS **Annexure III Page 29-30**	The Senate resolved to approve the BoS recommendation.

(c) Inclusion of 900 level courses – Department of Civil Engineering

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of Department of Civil Engineering for the inclusion of 900 level courses listed in the Annexure in the Ph.D curriculum. The details are enclosed as BOS **Annexure III Page 31-34**	The Senate resolved to approve the BoS recommendation.

ITEM No.: 36-BOS-5   Proposals of Department of Computer Science and Engineering

(a) Inclusion of new Elective Course for M.Tech

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of department of Computer Science and Engineering to introduce the following new Elective course for the M.Tech program in CSE and CSE-IS from 2021 – 22 onwards. **CS741 - Next Generation Cloud Architecture (3-1-0) 4** The details are enclosed as BOS **Annexure VII Page 29-32**	The Senate resolved to approve the BoS recommendation.

b) Inclusion of 900 level Courses in the curriculum for Ph.D program

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of the Department of Computer Science and Engineering to include the following 900 level courses *in the curriculum for Ph.D program* i) CS930 Quantum Computation (4-0-0) 4 ii) CS931 Reversible Computation (4-0-0) 4 iii) CS932 Advanced Cloud Architecture (4-0-0)4 The details are enclosed as BOS **Annexure VII Page 33-35**	The Senate resolved to approve the BoS recommendation.

c) To offer specialization under B.Tech CSE degree wherein students have to earn additional 20 credits

Resolution of the BoS	Resolution of the Senate
The Department of Computer Science and Engineering had proposed to offer specialization under B.Tech CSE degree wherein students have to earn additional 20 credits in one the following proposed stream in addition to the minimum credits to be earned for B.Tech Degree. Specialization in Artificial Intelligence and Machine Learning Basket 1 : CS312, CS320, CS422, CS423, CS490 Specialization in Distributed and Cloud Computing CS362, CS363, CS428, CS430, CS491 Specialization in Cyber-Physical	The Senate resolved to approve the BoS recommendation.

Systems

CS412, CS415, CS460, CS461, CS492

Specialization in Networking

CS359, CS433, CS435, CS469, CS493

Specialization in Security

CS311, CS418, CS463, CS427, CS470

The BOS resolved to recommend that the Department of Computer Science and Engineering may offer these specializations as Minor programme for B.Tech Computer Science and Engineering students under the category of "Minor in Niche areas", wherein students have to earn additional 20 credits in one of the above streams in addition to the minimum credits to be earned for B.Tech Degree.

The details are enclosed as BOS **Annexure VII Page No. 4 & 7**

(d) Introduction of Two MATHS courses as program core course for B.Tech degree programme

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of Department of Computer Science and Engineering to introduce the following two MATHS courses as program core course for the B.Tech degree programme in Computer Science and Engineering.	The Senate resolved to approve the BoS recommendation.

MA 208 (3-0-0) 3 – Probability Theory and Applications **MA 204 (3-0-0) 3 – Linear Algebra and Matrices** The details are enclosed as BOS **Annexure VII Page No.4**	

(e) To include Capstone and mini projects in the curriculum for B.Tech

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of Department of Computer Science and Engineering to include the following Cornerstone/capstone and mini projects (Optional) in the curriculum for B.Tech Mini projects - CS 300, CS 350, CS 400, CS 450 - Maximum 4 credits Cornerstone/capstone Project – CS 401 - 4 credits The details are enclosed as BOS **Annexure VII Page No.7**	The Senate resolved to approve the BoS recommendation.

(f) To provide option to do the major projects either during 7th and 8th semester

The BOS resolved to recommend the proposal of Department of Computer Science and Engineering to provide an option to do the major project either in the institute or in the industry, either during VII or VIII semester. The details are enclosed as BOS **Annexure VII Page No.4**	The Senate resolved to approve the BoS recommendation.

ITEM No.: 36-BOS-6   Proposals of Department of Electrical and Electronics Engineering

(a) *Renaming of UG courses*	

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of the Department of Electrical and Electronics Engineering to rename the following courses without altering any other aspects of the course.	The Senate resolved to approve the BoS recommendation.

Course Code	L-T-P (Credits)	Existing/Present name of the course (As per Curriculum 2020)	New name resolved to be implemented
EE213	(3-1-3) 6	Electrical Machines - I	Induction Motors and Transforms
EE258	(3-1-3) 6	Electrical Machines - II	Synchronous Machines and DC Machines
EE265	(3-1-0) 4	Power System Engineering-I	Power Transmission and Distribution
EE350	(3-1-0) 4	Power System Engineering-II	Power System Analysis
EE430	(3-1-0) 4	Robot Dynamics and Control	Introduction to Robot Dynamics and Control
EE432	(3-1-2) 5	Machine Learning	Introduction to Machine Learning
EE476	(3-1-0) 4	Optimization Techniques	Introduction to Nonlinear and Linear Optimization

The details are enclosed as BOS **Annexure VIII Page No.11**

(b) *Changes in the degree requirements in B.Tech Curriculum*	

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of the Department of Electrical and Electronics Engineering for the following changes in the Degree Requirements for the B.Tech program:	The Senate resolved to approve the BoS

The details are enclosed as BOS **Annexure VIII Page No.10**			recommend ation.
Category of Courses	**Minimum Credits to be Earned**	**Asper Curriculum 2020:Minimum Credits to be Earned**	
Foundation Courses (FC)			
Basic Science Core (BSC)	*16*	*16*	
Engineering Science Core (ESC)	*13*	*13*	
Humanities and Social Science Core (HSC	*9*	*9*	
Programme Core (PC)	64	64	
Electives (Elective courses*/ Mini Projects** /MOOC/GIAN/NPTEL Courses***)	38	37	
Project (MP): Major Project	6	6	
Mandatory Learning Courses (MLC)****	16	5	
Total	162	150	

(c) *To change the credits for Practical Training*

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of the Department of Electrical and Electronics Engineering to change the credits of **EE498** Practical Training from existing 2 credits to one credit as per suggested recent guidelines related to MLCs. The details are enclosed as BOS **Annexure VIII Page No.9**	The Senate resolved to approve the BoS recommendation

(d) *Changes in listing of Programme Specific Elective (PSE) courses to segregate Design and Development Task under the sub heading "Mini Projects"*

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of the Department of Electrical and Electronics Engineering to segregate and list the following of Programme Specific Elective (PSE) courses under the sub heading "Mini projects". EE 347 Design & Development task in Control Systems (0-0-3) 2 EE 348 Design and Development Task in	The Senate resolved to approve the BoS recommendation.

Power Electronics & Drives (0-0-3) 2 EE 397 Design & Development task in Signal Processing (0-03) 2 EE 398 Design and Development task in Power Systems (0-0-3) 2 The details are enclosed as BOS **Annexure VIII Page No.12**	

(e) Changes in indicating the course requirements of the Honors Degree of EED

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of the Department of Electrical and Electronics Engineering to add a note indicating the course requirements of the Honors Degree of EED and to eliminate existing listing of PG courses from the UG curriculum The details are enclosed as BOS **Annexure VIII Page No.13**	The Senate resolved to approve the BoS recommendation.

ITEM No.: 36-BOS-7   Proposal of Department of Electronics and Communication Engineering

(a) Inclusion of new Elective Courses for UG

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of the Department of Electronics and Communication Engineering to introduce the following new Elective courses for B.Tech (ECE) : i) EC 360 Machine Learning for Wireless Communication Systems (3-1-0) 4 ii) EC 361 Sparse representations and	The Senate resolved to approve the BoS recommendation.

compressive sensing (3-1-0) 4 iii) EC 362 Deep Reinforcement Learning (3-1-0) 4 iv) EC 363 Machine Learning Applications in Radar Signal Processing (3-1-0) 4 The details are enclosed as BOS **Annexure VI Page No. 9-12**	
(b) To permit M.Tech students to earn elective credits from the MOOC (NPTEL – SWAYAM) courses	
The BOS resolved to consider the proposal of the Department of Electronics and Communication Engineering to permit M.Tech students to earn elective credits from the MOOC (NPTEL – SWAYAM) courses and **recommended that students of all the PG programmes may be permitted to earn maximum 3 credits from the MOOC (NPTEL – SWAYAM) courses** towards the elective credit requirements. Further, it is recommended that the credits earned through MOOC courses should not be included for CGPA calculations. The details are enclosed as BOS **Annexure VI Page No. 13**	The Senate resolved to approve the BoS recommendation.
(c) Inclusion of new Elective Courses for M.Tech program	
The BOS resolved to recommend the proposal of the Department of Electronics and Communication Engineering for the inclusion of the following new Elective Courses for the M.Tech programs :	The Senate resolved to approve the BoS recommendation.

CEN Streams

i) EC 851 Smart Antennas for Mobile Communication (3-1-0) 4

ii) EC 852 Synchronization in Wireless Communication Systems (3-1-0) 4

ii) EC 853 Channel Modelling and Equalizer Design for Wireless Communication (3-1-0) 4

SPML Streams

i) EC 878 Computer Algorithms and Data Structures (3-0-2) 4

ii) EC 879 Compressed Sensing and Sparse Signal Process (3-1-0) 4

iii) EC 880 Deep Learning in Radar Signal Processing (3-1-0) 4

The details are enclosed as BOS **Annexure VI Page No. 13-16**

(d) Inclusion of Self Study courses for Ph.D program

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of the Department of Electronics and Communication Engineering to include the following 900 level courses for Ph.D program i) EC 912 Advanced Coding Techniques for Wireless and Storage Systems 4 ii) EC 913 Machine Learning for Signal Processing 4 iii) EC 914 Algorithms for Satellite Image Processing 4 The details are enclosed as BOS **Annexure VI Page No. 16-18**	The Senate resolved to approve the BoS recommendation.

ITEM No.: 36-BOS-8   **The proposal of the Department of Information Technology**

a) *Change in Course codes of B.Tech (AI) program*	
Resolution of the BoS	**Resolution of the Senate**
The BOS resolved to recommend the changes in the course codes of B.Tech in Artificial Intelligence programme proposed by **Dept. of Information Technology** in order to follow the Institute guidelines on course codes. The details are enclosed as BOS **Annexure V Page No. 1**	The Senate resolved to approve the BoS recommendation.

b) *Introduction of new 900 level courses*	
Resolution of the BoS	**Resolution of the Senate**
The BOS resolved to recommend the proposal of Department of Information Technology to introduce the following new 900 level courses 1. IT933 Visual Computing -4 credits 2.IT935 Quantum Computing -4 credits 3. IT936 Blockchain Technology - 4 credits 4. IT934 Computational Finance- 4 credits The details are enclosed as BOS **Annexure V Page No. 39-44**	The Senate resolved to approve the BoS recommendation.

ITEM No.: 36-BOS-9: Proposals of Department of Mechanical Engineering

a) *Introduction of new UG program Elective courses -*	
Resolution of the BoS	**Resolution of the Senate**
The BOS resolved to recommend the proposal of department of Mechanical Engineering to introduce the following new elective courses:	The Senate resolved to approve the BoS recommendation.

1. ME 432 : Analytical Mechanics (3-0-0) 3

2. ME 433 : Condition Monitoring (3-0-0) 3

3. ME 434 : Micro fluidics (3-0-0) 3

4. ME 435 : Solar Energy (3-0-0) 3

5. ME 436 : Engineering Tribology (3-0-0) 3

6. ME xxx : Thermal Stress Analysis (3-0-0) 3

The details are enclosed as BOS **Annexure IV Page No. 2-8**

b) *Removal of PSEG restriction for M.Tech Elective courses*	
Resolution of the BoS	**Resolution of the Senate**
The BOS resolved to recommend the proposal of department of Mechanical Engineering to remove the PSEG1 and PSEG2 restriction for M.Tech elective courses. The details are enclosed as BOS **Annexure IV Page No. 9-10**	The Senate resolved to approve the BoS recommendation.

c) *The change in the title of the course ME 419*	
The BOS resolved to recommend the proposal of department of Mechanical Engineering to change the title of the course **ME 419: Processing of Composites** as **ME 419 Composite Materials** as the syllabus contains Mechanics of the Composites as well. The details are enclosed as BOS **Annexure IV Page No. 1 & 15**	The Senate resolved to approve the BoS recommendation.

(d) *Changes in the course contents in ME 252 and ME 303*	
Resolution of the BoS	**Resolution of the Senate**
The BOS resolved to recommend the proposal of department of Mechanical Engineering to change the course content of the following courses	The Senate resolved to approve the BoS recommendation.

ME 252 : Analysis and Design of Machine Components (3-1-0) 4

ME 303 : Design of Mechanical Drives (3-0-0) 3

The details are enclosed as BOS **Annexure IV Page No. 16**

(e) Changes in the course content of ME 205: Workshop Practice (0-0-3)2

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of department of Mechanical Engineering to change the course content of **ME 205: Workshop Practice (0-0-3) 2** The details are enclosed as BOS **Annexure IV Page No. 17**	The Senate resolved to approve the BoS recommendation.

f) Reshuffling of courses and changes in the course codes in the current course structure of B.Tech

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of department of Mechanical Engineering for reshuffling of the courses and changes in the course codes in the current course structure of B.Tech.	The Senate resolved to approve the BoS recommendation.

Existing code	Code to be change to
ME 305 Control Engineering (3-0-0) 3	ME 353 Control Engineering (3-0-0) 3 Core
ME 353 Automation Systems (3-0-0) 3 Core	ME 415 Automation Systems (3-0-0) 3 Electiv
ME 313 Mechatronic Systems (3-0-0) 3 Elective	ME 305 Mechatronic Systems (3-0-0) 3 Core
ME 415 Hydraulics and Pneumatic Control (3-0-0) 3 core	ME 313 Hydraulics and Pneumatic Control (3-0-0) 3 Elective

The details are enclosed as BOS **Annexure IV Page No. 18**

ITEM No.: 36-BOS-10 Proposals of Department of Metallurgical and Materials Engineering

(a) *Renaming of M.Tech Course*	
Resolution of the BoS	**Resolution of the Senate**
The BOS resolved to recommend the proposal of Department of Metallurgical and Materials Engineering to rename the following course: **MT 723 "Synthesis Techniques for Nanomaterials** as **"Synthesis of Nanomaterials and Nanostructures** The details are enclosed as BOS **Annexure X Page No. 1-3**	The Senate resolved to approve the BoS recommendation.
b) Renaming of PG program M.Tech (Process Metallurgy)	
The BOS resolved to recommend the proposal of Department of Metallurgical and Materials Engineering to rename the PG program M.Tech (Process Metallurgy) as "Materials Process Technology" The details are enclosed as BOS **Annexure X Page No. 1-3**	The Senate resolved to approve the BoS recommendation.

ITEM No.: 36-BOS-11 – Proposals of School of Management.

(a) *Introduction of Minor program in Economics under Minor in Niche areas*	
Resolution of the BoS	**Resolution of the Senate**
The BOS resolved to recommend the proposal of School of Management to introduce the Minor program in Economics for students of various B.Tech Programmes with	The Senate resolved to approve the BoS recommendation.

the following courses. Further, BOS resolved to recommend that as this programme is offered to B.Tech students, it may be considered under *the "Minor in other disciplines".*

i)SM 458 Introduction to Industrial Economics and Organization (3-0-0) 3

ii)SM 460 Microeconomics (3-0-0) 3

iii)SM 461 Macroeconomics (3-0-0) 3

iv)SM 462 Financial Economics (3-0-0) 3

v)SM463 Development Economics (3-0-0) 3

The details are enclosed as BOS **Annexure XIII Page No. 2-6**

(b) To change the course code of Minor in Management Courses to make it different from the MBA courses

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of Department School of Management to change the course code of Minor in Management Courses to make it different from the MBA courses. **The BOS further recommended that** all the minor programme courses may have a department specific course code with suffix M, as resolved in the 50th Senate meeting. The details are enclosed as BOS **Annexure XIII Page No. 2-6**	The Senate resolved to approve the BoS recommendation.

(c) To remove the syllabus of SM869 Merger and Acquisitions from the MBA curriculum

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of School of	The Senate resolved to approve the BoS recommendation.

Management to remove the syllabus of SM869 Merger and Acquisitions from the MBA curriculum. The details are enclosed as BOS **Annexure XIII Page No. 2-6**	

(d) To change the restriction for elective courses from different baskets for MBA program

Resolution of the BoS	Resolution of the Senate
The BOS resolved to recommend the proposal of School of Management to have 4 elective courses from one basket, 2 from another basket and one each from the remaining baskets of the MBA electives for the 3rd and 4th semester as against existing 3 electives from one basket and remaining courses from other baskets subject to maximum 2 courses per basket. The details are enclosed as BOS **Annexure XIII Page No. 7**	The Senate resolved to approve the BoS recommendation.

ITEM No.:36-BOS-12: Proposals of SAS officers recommended by Dean (SW).

Resolution of the BoS	Resolution of the Senate
(a) Renaming of the existing "Dept. of Physical Education & Sports" as "Department of Physical Education and Sports Activities – **The BOS resolved to consider** the proposal of SAS Officers recommended by of Dean (SW) to rename the **"Dept. of Physical Education & Sports"** and recommended to rename it as **"Department of Physical**	The Senate resolved to consider the BoS recommendation to rename the "Dept. of Physical Education & Sports" as "Department of Physical Education, Sports and Student Activities" and to recommend the same for approval by BOG.

Education, Sports and Student Activities" so as to cater to fulfill the academic requirements as per the revisions proposed for NEP 2020 implementation, by offering the MLC course on Liberal Arts courses/cocurricular, extracurricular activities. The details are enclosed as BOS **Annexure XIV Page No. 1-3**	
(b) Inclusion of new MLC courses under NEP 2020 **The BOS resolved not to recommend the** proposal of SAS Officers for the inclusion of new MLC courses listed in the Annexure under the new curriculum 2021-22. However, it is resolved that these components may be considered under Category A of the MLC course on Liberal Arts courses/co-curricular, extracurricular activities and the credits assigned may be considered while awarding the credits to students for these activities under **category A.** The details are enclosed as BOS **Annexure XIV Page No. 1-3**	The Senate resolved to approve the BoS recommendation to not consider the proposal of SAS Officers for the inclusion of new MLC courses listed in the Annexure under the new curriculum 2021-22 and only to consider the these components and credits under the applicable categories of the MLC course on Liberal Arts courses/co-curricular, extracurricular activities.

ITEM No.: 36-BOS-13 Modification in Curriculum for B.Tech Degree for all the Programmes : Modification in list of course, suggested plan of study and Degree requirements to accommodate the proposed revisions as per NEP-2020 guidelines

Resolution of the BoS	Resolution of the Senate
a) Chemical Engineering (CH) **The BOS resolved to recommend** the modification in the revised curriculum structure and contents for B.Tech program in Chemical Engineering. The details are enclosed as BOS **Annexure XI Page No. 1-6**	The Senate resolved to approve the BoS recommendation.

Resolution of the BoS	Resolution of the Senate
(b) Civil Engineering (CV) **The BOS resolved to recommend** the modification in the revised curriculum structure and contents for B.Tech program in Civil Engineering. The details are enclosed as BOS **Annexure III Page No. 10-27**	The Senate resolved to approve the BoS recommendation.

Resolution of the BoS	Resolution of the Senate
(c) Computer Science and Engineering (CO) **The BOS resolved to recommend** the modification in the revised curriculum structure and contents for B.Tech program in Computer Science and Engineering The details are enclosed as BOS **Annexure VII Page No. 6-22**	The Senate resolved to approve the BoS recommendation.

Resolution of the BoS	Resolution of the Senate
(d) Electrical and Electronics Engineering (EE) **The BOS resolved to recommend** the modification in the revised curriculum structure and contents for B.Tech program in Electrical and Electronics Engineering. The details are enclosed as BOS **Annexure VIII Page No. 1-8**	The Senate resolved to approve the BoS recommendation.

Resolution of the BoS	Resolution of the Senate
(e) Electronics and Communication Engineering (EC) **The BOS resolved to recommend** the modification in the revised curriculum structure and contents for B.Tech program in Electronics and Communication Engineering. The details are enclosed as BOS **Annexure VI Page No. 1-8**	The Senate resolved to approve the BoS recommendation.

Resolution of the BoS	Resolution of the Senate

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(f) Information Technology (IT) **The BOS resolved to recommend** the modification in the revised curriculum structure and contents for (i) B.Tech program in Information Technology and (ii) B.Tech program in Artificial Intelligence *Further , it is resolved to recommend that the students of B.Tech (IT) should not be allowed to take Minor in AI and vice versa. The students of B.Tech (AI) should not be allowed to take the interdisciplinary Minor in Machine Learning.* The details are enclosed as BOS **Annexure V Page No. 2-38**	The Senate resolved to approve the BoS recommendation.

Resolution of the BoS	Resolution of the Senate
(g) *Mechanical Engineering (ME)* **The BOS resolved to recommend** the modification in the revised curriculum structure & contents for B.Tech. program in Mechanical Engineering. The details are enclosed as BOS **Annexure IV Page No. 10-14 & 20-35**	The Senate resolved to approve the BoS recommendation.

Resolution of the BoS	Resolution of the Senate
(h *Metallurgical and Materials Engineering (MT)* The BOS resolved to recommend the modification in the revised **curriculum structure and contents for B.Tech program** in *Metallurgical and Materials Engineering* Engineering. The details are enclosed as BOS **Annexure X Page No. 4-6**	The Senate resolved to approve the BoS recommendation.

Resolution of the BoS	Resolution of the Senate
(i) *Mining Engineering (MN)* The BOS resolved to recommend the modification in the revised **curriculum structure and contents for B.Tech program in Mining Engineering.** The details are enclosed as BOS **Annexure IX Page No. 1-19**	The Senate resolved to approve the BoS recommendation.

ITEM No: 36-BOS-14: Inclusion of External Additional Guides

Resolution of the BoS	Resolution of the Senate
A) Department of Chemistry The BOS resolved to consider Prof. Abdul Wahab Mohammad Deputy Vice Chancellor, Universiti Kebangsaan Malaysia as an Additional Research Guide for Ms. Pallavi in the Department of Chemistry. BOS Annexure - XV Page No. 1-64	The Senate noted the BoS resolution.
The BOS resolved to consider Dr. Ramin Rahnemay Farnood, Faculty of Applied Science and Engineering, University of Toronto, Canada as an Additional Research Guide for Mr. P. Satishkumar of Department of Chemistry. BOS Annexure - XV Page No. 65 - 116	The Senate noted the BoS resolution.

Resolution of the BoS	Resolution of the Senate
B) Department of Mechanical Engineering 1. The BOS resolved to consider Dr. Ramana Murthy, Scientist, Aeronautical Development Agency as an External additional Guide for the Ph.D students (under External Registrant category), Mr. Sankaraiah Mada and Mr. B. Gopi Krishna of the Department of Mechanical Engineering. BOS Annexure – XV Page No. 117 – 123 and Page No. 132 - 138	The Senate noted the BoS resolution.

Resolution of the BoS	Resolution of the Senate
2. The BOS resolved not to consider Dr. Vijeesh V. Associate Professor, NMAMIT, Nitte as an External Additional Guide for Rajath N. Rao of the Department of Mechanical Engineering. BOS Annexure – XV Page No. 124 - 131	The Senate noted the BoS resolution.

Resolution of the BoS	Resolution of the Senate
3. The BOS resolved not to consider Dr. Pulla Kondaiah, Assistant Professor, Mahindra University Hyderabad as an External Additional Guide for Silambarasan M. of the Department of Mechanical Engineering. BOS Annexure – XV Page No. 139 - 144	The Senate noted the resolution of the BoS.

Resolution of the BoS	Resolution of the Senate
4. The BOS resolved not to consider Dr. L Ravikumar, Professor, BMS College of Engineering, Bengaluru as an External Additional Guide for Tripti Pachori of the Department of Mechanical Engineering. BOS Annexure – XV Page No. 145 - 156	The Senate noted the resolution of the BoS.

ITEM No: 36-BOS-15: **Inclusion of new Elective course at PG level – Proposal of Department of Physics**

Resolution of the BoS	Resolution of the Senate
Inclusion of new Elective Course at PG level **The BOS resolved to recommend**	The Senate resolved to approve the BoS recommendation.

| the proposal of the Department of Physics to introduce the new Elective at PG Level.

Course Name : Quantum Field Theory

Course Code : PH873

Credits : 3-0-0

BOS Annexure – XVI Page No. 1 - 3 | |

Item No. 58.3.2: To consider the Modification in B.Tech Regulations for Change of Branch – Reg.

Preamble: The B.Tech Curriculum was revised in 2018. The revised curriculum includes program specific core courses at the first year level. Further, a few of the courses like Elements of Electrical Engineering, Elements of Electronics and Communication Engineering, Elements of Mechanical Engineering are not common to all the branches. In the proposed curriculum for 2021, the Computer Programming courses are also not common. In view of this, the modification in Regulations on the merit list criteria for Change of Branch as recommended by BOS was discussed.

Item	Existing	Proposed Modifications	Senate Resolutions
Change of Branch **Modification in B.Tech Regulations**	**Clause 6.2 of B.Tech Regulations-2020.** Normally, only those students will be eligible for consideration of a change of branch after the second semester, who have – a) completed all the **common** credits required in the first two semesters of their studies, in their first attempt; b)obtained a SGPA of not less than 8.00 (7.00 for SC/ST) in both the FIRST as well as the second semester **Clause 6.4 B.Tech Regulations-2020.** Change of branch shall be strictly in order of merit of the applicants. For **this purpose the CGPA obtained** at the end of the second semester shall be considered. **Clause 6.5 B.Tech Regulations-2020.** **A common CGPA list** shall be prepared at the	**B.Tech Regulations-2021** Normally, only those students will be eligible for consideration of a change of branch after the second semester, who have – a) **completed all the credits required in the first two semesters of their studies, in their first attempt;** b) obtained a SGPA of not less than 8.00 (7.00 for SC/ST) in both the FIRST as well as the second semester. **B.Tech Regulations-2021** Change of branch shall be strictly in order of merit of the applicants. For this **purpose the GPA of all the common courses obtained** at the end of the second semester shall be considered. **B.Tech Regulations-2021** A common list of **GPA of all the common**	The senate resolved to approve the proposed Modification in B.Tech Regulations for Change of Branch.

	end of the second semester ,category wise to consider students for branch change. **Clause 6.6. B.Tech Regulations-2020.** The applicants may be allowed a change in branch, strictly in order of inter se merit, subject to the limitations as given below: (a) The actual number of students in the third semester in any particular branch to which the transfer is to be made, should not exceed the sanctioned strength and the actual number of students in any branch from which the transfer is being sought does not fall below 75% of the total	**courses obtained** at the end of the second semester shall be prepared at the end of the second semester, category wise to consider students for branch change. **B.Tech Regulations-2021** The applicants may be allowed a change in branch, strictly in order of inter se merit , subject to the limitations as given below: (a) The actual number of students in the third semester in any particular branch to which the transfer is to be made, should not exceed the sanctioned strength and the actual number of students in any branch from which the transfer is being sought does not fall below 75% of the total sanctioned intake. (b) If a student S! is not permitted to change from branch A to B due	

	sanctioned intake. (b) If a student S1 is not permitted to change from branch A to B due to the clause 6.6 9a) above, any other student S2 from any branch with **CGPA** less than S1 will also not be permitted to change to branch B.	to the clause 6.6 9a) above, any other student S2 from any branch with **GPA of common courses** less than S1 will also not be permitted to change to branch B.	

Item No. 58.3.3: To consider the Extension of the time limits for the submission of Research proposal, progress reports and thesis of Ph.D and M Tech (Research) – Reg.

Proposal	Resolution of the Senate
Preamble: The Ph.D Research scholars and M.Tech (Res) students were out of the campus due to COVID-19 restrictions and this has hampered their Research work. There were two phases of lock down due to which the students had to stay away from the campus compulsorily: (i) During March 2020 to November 2020, and (ii) during April 2021 to September 2021, totally counting to 13 months. The research work of many students has been delayed due to the above reasons and many of them have not been able to meet the time lines of	The Senate resolved to approve the proposed extension of the time limits for the submission of Research proposal, progress report and thesis of Ph.D and M.Tech (Research).

proposal submission, progress seminars or thesis submission.

In the E-Senate meeting held in the month of May, 2020 it was resolved to extend the maximum period for the completion of Ph.D and M.Tech (Res) work by an amount equal to the lockdown period at the Institute.

In continuation to the above resolution, it is proposed

    (a) To extend the time limit for submission of proposal by the

      (i)   Ph.D scholars admitted in 2018, 2019 and 2020 by a period of lockdown.

      (ii)   M.Tech (Res) students admitted in 2019 and 2020 by a period of lockdown

    (b) To extend the time limit for submission of thesis by the

      (i)   Ph.D scholars admitted in 2020 or earlier, by a period of lockdown.

      (ii)   M.Tech (Research) students admitted in 2020 or earlier, by a period of lockdown.

Item No. 58.3.4: To consider the Conversion of students from Full time Non-scholarship Category to External Registrant Category – Reg.

Proposal	Resolution of the Senate
There are frequent requests from Research scholars who have been admitted under Full time Non-scholarship category and who are at different stages of their Ph.D Research work for conversion from full time to Part time status. Some of them come with a job offer in hand and a few without	The Senate resolved to consider the Conversion of students from full time Non-scholarship Category to External Registrant Category with the following condition: To allow conversion of students from Non-scholarship to External registrant Category on the basis of recommendation of

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any. They cite family financial crisis as the reason. Their requests are being recommended by guides and the Department. These cases are likely to increase in near future as we are admitting students under the Full-time non-scholarship category. **The probable options are** (i) To discontinue admissions under non-Scholarship Student category **Or** (ii) To allow conversion of students from Non-scholarship to External registrant Category on the basis of recommendation of Supervisor and DRPC, if the student gets an employment in any organization and produce NOC from them to pursue Ph.D. However, the conversion may be allowed only after submitting one progress report and at least acceptance of one peer reviewed journal publication.	the Supervisor and DRPC, if the student gets an employment in any organization and produce NOC from them to pursue Ph.D. However, the conversion may be allowed only after submitting one progress report and at least one peer reviewed conference/ journal publication.

Item No. 58.3.5: To consider the Degree certificate for Minors and Honors Students – Reg.

Proposal	Resolution of the Senate
The first batch of students who have registered for Minor or Honors Programmes of the Institute will be graduating in 2022. The following Title of the Degree is proposed for those who complete the Minor or Honors Programme requirements.	The Senate resolved to approve the proposed Title of the Degree for those who complete the Minor or Honors Programme requirements.

For Minors B.Tech in X with Minor in Y - Where X is the Student's Parent Discipline and Y is the Minor Discipline **For Honors** B.Tech (Honors) in X - Where X is the Student's Discipline For example, • If a student of Civil Engineering does Minor in Information Technology then the Degree to be awarded may be **B.Tech in Civil Engineering with Minor in Information Technology** • If a student in Civil Engineering does Honors Programme, then the Degree to be awarded may be **B.Tech (Honors) in Civil Engineering**	

Item No. 58.3.6: To consider and approve the academic activities of Frist year B.Tech of Academic Year 2021-22 in online mode and to consider the Academic Calendar – Reg.

Agenda Item	Resolution of the Senate
The admission of First year B.Tech students is likely to get completed by13th December 2021. The mode of conduct of classes and the Academic calendar has been approved by Chairman, Senate. As approved by the Chairman, the First Semester B.Tech classes would commence from 27th December 2021 in online mode and the Orientation programme would be conducted during 15th -24th December 2021 **Please refer Annexure II**	The Senate noted considered the approval of Chairman, Senate on the conduct of academic activities of First Semester B.Tech for AY-2021-22 in online mode and the Academic Calendar.

Item No. 58.3.7: To consider and approve the mode of conduct of academic activities of III year/IV year B.Tech, II and higher years of PG and Ph.D of Academic Year 2021-22 and to consider the Academic calendar-Reg.

Agenda Item	Resolution of the Senate
The academic session for Even semester of III year /IV year B.Tech, II and higher years of PG and Ph.D of Academic Year 2021-22 would commence from 27th December 2021. The Academic calendar has been approved by Chairman, Senate. As approved by the Chairman, the classes would be held in Physical mode. However, it is proposed that Chairman. Senate may be authorized to approve any changes in the mode of conduct of the classes based on the prevailing circumstances, at a later date before the commencement of their classes based on the prevailing conditions at the time of academic sessions. **Please refer Annexure III**	The Senate noted and considered the approval of Chairman ,Senate on the mode of conduct of academic activities of even semester of III year/IV year B.Tech, II and higher years of PG and Ph.D of Academic Year 2021-22 in Physical mode and the Academic calendar.Further, the Senate resolved to authorize the Chairman. Senate to approve any changes in the mode of conduct of the classes based on the prevailing circumstances, at a later date based on the prevailing conditions at the time of academic sessions.

Item No. 58.3.8: To consider and approve the Academic calendars for
(a) II Year B.Tech (Even Semester, Jan-May 2022)
  (b) I year (Even semester,Feb-June,2022) M.Tech./M.Sc/MBA/Ph.D and IV semester MCA.
  (c) I Year (II Sem) MCA (Even Semester, Feb-July 2022))
  (d) I Year (II Sem B.Tech -2021 admitted) for AY 2021-22 (Even semester)
  (e) Academic Year 2022-23 (Odd semester; July -Dec, 2022) for all except II Year B.Tech (III Sem 2021 admitted)
  (g) Summer Session of AY 2021-22 for IV Year B Tech,-Reg.

Agenda Item	Resolution of the Senate
• The Academic session for II Year B.Tech (Odd Semester) would end on 14th January 2022. It is proposed to start the academic session for II	The Senate resolved to consider and approve the proposed Academic Calendars. Further, the Senate resolved that the mode of conduct of

Year B.Tech (Even Semester) from 17th January 2022 and to consider the Academic Calendar presented in Annexure IV(1)

- The Academic session for Ist year (Odd semester) M.Tech./M.Sc/MBA/Ph.D and III semester MCA would end on 4th February 2022. It is proposed to start the academic session for Ist year (Even semester-II Sem) M.Tech./M.Sc/MBA/Ph.D and IV semester MCA from 7th February 2022and to consider the Academic Calendar presented in Annexure IV(2)

- .The Academic session for I Semester MCA for the AY 2021-22 would end on 25th February 2021.It is proposed to start the II semester MCA classes (Even Semester of AY 2021-22) from 28th February 2022and to consider the Academic Calendar presented in Annexure IV(3)

- . It is proposed to Start the academic session for II Semester B.Tech (2021 admitted) for Academic Year 2021-22 (Even semester) from 16th May 2022 and to consider the Academic Calendar presented in Annexure IV(4)

- The academic calendar (**July - Dec, 2022**) for Academic Year 2022-23 (Odd semester) for all the years of B.Tech, PG, Ph.D except II Year B.Tech (2021 admitted) and to consider the Academic Calendar presented in Annexure IV(5)

- To consider the Summer Session Calendar for IV Year B.Tech for AY-2021-22 presented in

classes for various programmes and years may be decided at a later date based on the prevailing conditions at the time of academic sessions.

Annexure IV (6) Further, it is proposed to decide on the mode of conduct of classes for various programmes and years at a later date before the commencement of their classes based on the prevailing conditions at the time of academic sessions.

Item No. 58.3.9: To consider the Honoris Causa Degree Certificate awarded to Sri Suhas Lalinakere Yathiraj

Agenda Item	Resolution of the Senate
The format, content and assignment of Registration Number of the Degree certificate for Doctor of Science (Honoris Causa) awarded to Sri Suhas Lalinakere Yathiraj has been approved by the Chairman, Senate. The approval and a copy of the certificate is annexed as **Annexure V**	The Senate resolved to consider the approval of Chairman, Senate for the format, content and assignment of Registration Number of the Honoris Causa Degree Certificate awarded to Sri Suhas Lalinakere Yathiraj.

Item No. 58.3.10 To consider and approve the Degree of Ms. Ananya R. Shetty, Roll No. 14IT107 B.Tech Program (2016 batch).

Agenda	Resolution of the Senate
Kum. Ananya R. Shetty had got a provisional admission at NITK Surathkal during 2014-15 under OBC quota for B.Tech in IT. Her OBC certificate was sent to the concerned authorities (Dy. Commissioner, Udupi District) for verification and it was brought to the notice of the Institute that she does not belong to OBC Category but belongs to General Category. Hence the provisional admission letter issued to her was cancelled. Ms.Ananya R. Shetty filed a writ petition	The Senate resolved to consider and approve the Degree of Ms. Ananya R. Shetty. However, the Senate resolved that a legal opinion may be sought regarding the consideration of the convocation in which the Degree may be awarded.

against the cancellation of provisional admission. As per the judgement of the Hon'le High Court of Karnataka, Bangalore vide Writ Petition No. 14514 dated 11-11-2021, the mater pertaining to cancellation of provisional admission order issued to Kum. Annaya R. Shetty has been disposed off after being given a finding that the petitioner belongs to "Nadava Caste". The court further ordered that **"Institute is directed to issue the Grade Cards and Degree Certificate to the petitioner"**. In view of the court order, the admission of the petitioner for the B.Tech program during the academic year 2014-15 has been confirmed and hence OM has been issued for revocation of cancelled admission order. A Provisional Degree Certificate and 8th Semester Grade card has also been issued. She was eligible for the award of degree during the 16th Annual Convocation. However, her degree was not approved by Senate and BOG then. The matter was placed before the Senate to consider and approve the Degree of Ms. Ananya R. Shetty.	

Item No. 58.3.11 To consider and approve the modification in Ph.D Degree certificate - Department of MACS.

Proposal	Resolution of the Senate
The Department of MACS has proposed the inclusion of only the thesis title in the Ph.D certificates and not to mention the	The Senate resolved to consider and approve the proposal of the Department of MACS and approved that the Ph.D Degree

| Department / Faculty with which the student is associated. | certificate of NITK may include only the thesis title without mentioning the Department/ Faculty. |

Item No. 58.3.12: To consider the request to condone the delay in Submission of Research Proposal – Reg.

Proposal	Resolution of the Senate
Ms. Ramya K., Ph.D Research Scholar of Civil Engineering Department has requested to condone the delay in the submission of proposal report due to pandemic situation and personal issues. **Reg. No** : 187512187CV504 **Name** : RAMYA K. **D.O.J** : 11-Jul-2018 **Status** : Proposal on 09-11-2021	The Senate resolved to consider and approve the request to condone the delay in Submission of Research Proposal.

Item No. 58.3.13 : To consider the list of Panel of Experts for Faculty Recruitment - Reg.

Proposal	Resolution of the Senate
As per the Ministry letter F.No.33-9/2011-TS.III dated 30th November, 2017, the Institute has to create a Panel of Experts by taking inputs from Department. The list, along with the postal and electronic addresses, designations, specialization and other relevant particulars of proposed experts are placed before the Senate for the approval.	The Senate resolved to consider and approve the list of Panel of Experts for Faculty Recruitment. Further, the Senate authorized the Chairman, Senate for inclusion of additional names in the event of non-availability of experts in the list.

Meeting ended with vote of thanks to the Chair.

(K. Ravindranath)
Registrar and
Secretary – Senate, NITK

(K. Umamaheshwar Rao)
Director and
Chairman – Senate, NITK