MINUTES OF THE 114th MEETING OF THE SENATE HELD ON 24-04-2021 AT 11.00 AM THROUGH VIDEO CONFERENCE

Members Present:

Prof. N.V. Ramana Rao   **Shri S. Goverdhan Rao**
Director, NITW & Chairman, Senate   Registrar & Secretary, Senate

Internal:

1	Dr. K.V. Jayakumar	36	Dr. N. Bheema Rao
2	Dr. N.V. Uma Mahesh	37	Dr. C.B. Rama Rao
3	Dr. C.S.R.K. Prasad	38	Dr. G.V.S. Nageswara Rao
4	Dr. M. Chandrasekhar	39	Dr. N. Narasaiah
5	Dr. C.B. Kameswara Rao	40	Dr. Asit Kumar Khanra, HoD, MMED
6	Dr. P. Ananda Raj	41	Dr. Sonawane Shirish Hari
7	Dr. D. Ramaseshu	42	Dr. A. Venu Vinod
8	Dr. G. Rajesh Kumar	43	Dr. A. Sarat Babu
9	Dr. Deva Pratap	44	Dr. K. Anand Kishore
10	Dr. P. Ratish Kumar	45	Dr. S.G. Sanjeevi
11	Dr. Gunneswara Rao T.D.	46	Dr. R.B.V. Subrahmanyam
12	Dr. V. Ramana Murty	47	Dr. R. Satish Babu, HoD, Biotech
13	Dr. Sydulu Maheswarapu	48	Dr. J.V. Ramana Murthy
14	Dr. D.M. Vinod Kumar	49	Dr. Y.N. Reddy
15	Dr. D.V.S.S. Siva Sarma	50	Dr. K.N.S. Kasiviswanadham
16	Dr. Bhagwan K Murty	51	Dr. Debashis Dutta
17	Dr. N. Subrahmanyam	52	Dr. D. Srinivasacharya
18	Dr. N. Viswanathan	53	Dr. P. Muthu, HoD, Mathematics
19	Dr. V.T. Somasekhar	54	Dr. L. Ramgopal Reddy
20	Dr. S. Srinivasa Rao, EED.	55	Dr. R.L.N. Sai Prasad
21	Dr. M. Sailaja Kumari	56	Dr. K. Venugopal Reddy
22	Dr. K. Madhu Murthy	57	Dr. D. Dinakar
23	Dr. S. Srinivasa Rao	58	Dr. A. Ramachandraiah
24	Dr. P. Bangaru Babu	59	Dr. K. Laxma Reddy
25	Dr. A. Venu Gopal	60	Dr. V. Rajeswara Rao
26	Dr. N. Selva Raj	61	Dr. K.V. Gobi
27	Dr. G. Amba Prasad Rao	62	Dr. P. Venkata Sri Laxmi
28	Dr. L. Krishnanand	63	Dr. Vishnu Shanker, HoD, Chemistry
29	Dr. A. Neelakanteswara Rao	64	Dr. M. Ravinder Reddy
30	Dr. K.V. Sai Srinadh	65	Dr. V. Ramadevi, HoD, SoM
31	Dr. R. Narasimha Rao	66	Dr. K. Madhavi, HoD, H&SS
32	Dr. Adepu Kumar	67	Dr. P. Ravi Kumar
33	Dr. V. Suresh Babu	68	Dr. Dayanidhi
34	Dr. T. Kishore Kumar	69	Dr. P. Madhusudhan Reddy
35	Dr. L. Anjaneyulu		

Special Invitees:

1	Dr. P.V. Suresh, Assoc. Dean (PG)	2	Shri Soumen Karmakar, DR, Academic

The following members have expressed their inability to attend the meeting:

External:

1.	Prof. T. Sundarajan	3.	Prof. Debashis Acharya
2.	Dr. (Mrs.) Kirti Srivastava		

Internal:

1	Dr. B.B. Amberkar	2	Dr. Puli Ravi Kumar

Special Invitees:

1	Dr. P. Hariprasad Reddy, Assoc. Dean (PhD)	2	Dr. V. Hari Kumar, Assoc. Dean (UG)

The Chairman, Senate welcomed all the members of the senate conducted through video conference. He requested Dean Academic to proceed with the agenda.
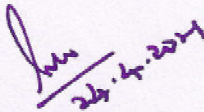
S.No.	Agenda	Approved / Modifications / Deferred
1.	Approval of minutes of 113th meeting of the Senate	Approved
2	Results – I year B.Tech. and I year MCA Dean Academic has presented the results of I year B.Tech. and I year MCA received from the departments. **All the results are passed by the senate except the following subjects needing clarification / revision.** The Chairman, Senate suggested to make the necessary changes/corrections and send the revised grades of these subjects for Chairman Senate approval.	
	I B.Tech. – I Sem	• The ranges for E, P and F in Physics and Physics lab are referred back for correction. • In Engineering biology, S grade may be revised by considering avg. + 1.5 sigma. • Two students in Basic Electrical Engineering have not attended any classes, but because of the pandemic, they were given F grade. Senate has recommended that the students who have not written all the exams (Minor, Mid and End sem. exams) shall be given R Grade and it is also suggested to verify the same with all the other subjects and give R grade to all such students.
	I year MCA - I Sem	Senate approved the results of MCA I year, I sem.
3.	**Curriculum Revision: 2021-22**	
	As decided in the 113th senate meeting, the draft guidelines for curriculum revision were prepared by the Dean Academic with the help of Academic standing Committee taking the inputs from the departments. The same were circulated to the HoDs to discuss further in their respective departments. The responses received from the	

		departments are compiled and presented along with the draft guidelines to the Senate by the Dean Academic.
		The members discussed and deliberated on various points and approved the guidelines for curriculum revision presented in **APPENDIX**.
Any other items		
4.	Eligibility for M.Sc. (Tech.)	DAC-PG&R has recommended to include the students with B.E./B.Tech. (Engg. Physics) in the eligibility criteria in addition to the existing one. Senate has approved the recommendation.
5.	Ph.D evaluation – request by Prof. KV Gobi	Senate authorized the Chairman, Senate to review the case and take appropriate action.
6.	Application of Prof. K V Jaya Kumar for Emeritus Professor	Chairman, Senate mentioned that Prof. K.V. Jaya Kumar is superannuating on 30th April and thanked him for his long service rendered to the institute. He requested the senate to approve the recommendation of the Civil Engineering department for appointing him as Emeritus Professor. Senate approved the proposal. Prof. Jaya Kumar has thanked all the faculty for their cooperation during his stay.
7.	Approval of Prof. M. Sydulu as member of BOG	Chairman, Senate requested the senate to approve the proposal of Prof. M. Sydulu as the member of BOG from 1st May 2021 subsequent to the retirement of Prof. K V Jaya Kumar. Senate approved the proposal.

Chairman, Senate requested Registrar to consolidate the rules for appointing Visiting Professor and Professor Emeritus and circulate the same to all the faculty for clarity on the issue.

Dean Academic and Chairman, Senate thanked everyone present for their patient listening and participation in this longest senate on curriculum revision.

SECRETARY   **CHAIRMAN**

APPENDIX
Guidelines for Curriculum Revision – 2021-22

I. General Guidelines
A. General issues
1. Students studying 2 year / 3 year / 4 year / 5 year programs should earn credits equal to 40 × No. of years for the award of the degree.
2. No branch change at the end of 1st B.Tech.

3. The students will be attached to their respective departments in the 1st year itself.
4. 1st year curriculum will be branch specific.
5. Micro credit courses (i.e. 1 or 2 credit courses) may be introduced.
6. Laboratory courses shall have 1 / 1.5 / 2 / 3 credits.
7. Maximum number of credits for any course shall not be more than 3.
8. Attendance: 80% attendance is mandatory.
9. Integrated theory and lab may be introduced.
10. Detention system shall be continued as it is.

B. Assessment:
1. Weightage of Internal to End semester marks shall be 60:40
2. The schedule and mode of internal evaluation is left to the teacher with a prior announcement in the lecture schedule. However, written exam(s) component in internal assessment shall be at least for a minimum of 20 marks. Departments have to maintain check points (eg. CRCs, respective DACs, Academic Audit, etc.) to monitor the execution of the lecture schedule.
3. End semester exams will only be conducted by the exam section as per the Academic Calendar. These exams will start after 3 days from the last working day.
4. Evaluation of lab is left to the teacher. Conducting the end lab exam is not mandatory. Scheme of evaluation needs to be informed to the students in the lecture plan of lab.
5. A mid semester break shall be included in the academic calendar during which Technozion/Spring Spree are to be conducted.
6. If the subject is offered to more than one section - Commonality in assessment and grading is not mandatory.

C. Grading Procedure (common to all programs)
➢ Relative grading shall be followed for all UG and PG programs in general.
➢ If the number of students in any course is less than or equal to 30, the method of grading (either relative or absolute) may be left to the teacher. However, the method of grading shall be informed to the students in the lecture schedule.
➢ Conducting the end exam for the laboratory courses is not mandatory.
➢ Writing End exam is mandatory for the award of a grade in theory / lab courses wherever the end exam is conducted.
➢ Class average shall be calculated by considering all the students who have written the end exams and it shall be in range of C grade.
➢ If the average is more than 75 or less than 50 in a theory course, the teacher has to present the lecture schedule, all the question papers along with the key and the DAC has to make observations on the coverage of syllabus, continuous and timely assessment, coverage of COs, evaluation of scripts, etc. and the same may be presented in the Senate for approval.
➢ "S" Grade shall be awarded to those students securing total marks > (average + 1.5 to 2 times standard deviation) with a minimum of 40% in the end exams.
➢ "E" Grade shall be awarded to those students securing total marks > 40 with a minimum of 40% in the end exams.
➢ Students securing less than 40% marks in end exam may be awarded "P" grade, if they secure total marks greater than half the class average.
➢ Other grades are to be appropriately distributed (normal distribution is not mandatory)

➢ A student, who has not written end semester exam or getting total marks less than half the class average shall be awarded "F" grade.

➢ A student shall be eligible to get the degree if he/she gets 5 CGPA or more.

➢ There will be no summer quarter classes. Any student with "R" Grade has to re-register.

➢ There will be no exam mode registration.

➢ Students with "F / P" grades can re-register under study mode for the course to get a grade based on their performance or write the supplementary exam to get a maximum grade up to D.

➢ Supplementary / Re-End exams will be conducted for 40 marks only in the summer for both odd and even semester courses.

➢ Grading shall be finalized at the department level.

➢ Final statistics of the results are to be presented by the respective HoD to the Senate for approval. HoD presentation shall include the summary of comments on different subjects with low and high averages, failures and reasons for any deviations.

II. B.Tech. Curriculum

➢ EXIT policies for B.Tech. are deferred.

A. Credits and distribution

Minimum number of credits for the students to attain B.Tech. degree is 160 and the categories and the weightage of credits is as follows:

Category Description	Credits
Induction Program (Two Weeks)	No credits but mandatory
Basic Science core (BSC)	15 - 21
Engineering Science core (ESC)	21 - 27
Professional Core Courses (PCC)	75 - 81
Professional Elective Courses (PEC)	15 - 21
Open Elective Courses (OEC)	6 - 9
Humanities and Social Science Courses (HSC)	6 - 9
Mandatory Non-credit Courses*	8 courses
Project Work and Seminar	4 + 1
Summer Internship (in-house or external) / EPICS / Socially Relevant Project / Employability Enhancement Courses (6 to 8 weeks during any summer)	2
	160

• Each audit course content is expected to be worth of 2 credits.

• Games and Sports and Yoga in EAA shall be made compulsory in both the semesters of first year.

• Remaining courses [like Indian Constitution, Engineering Biology, Design Thinking, Programming Languages, Indian Culture and Art, History of Science and Technology, Environmental Science, IPR, Professional Ethics, Human Values, Communication Skills, Foreign/Indian Languages, Entrepreneurship, etc.] have to be done from 2nd

year onwards with one course in each semester. These courses may be done in MOOCs.
- Mode of evaluation, including the end semester exam is completely left to the concerned teacher.
- Weightage shall be given to innovation/start-up activities in the form of credits (2 courses under PEC / OEC shall be considered for this activity)

Credit Distribution

1st Year	I Sem: 19 $\pm$ 1 Credits II Sem: 19 $\pm$ 1 Credits	Total = 38 credits
2nd Year	III Sem: 23 $\pm$ 2 Credits IV Sem: 23 $\pm$ 2 Credits	Total = 46 credits
3rd Year	V Sem: 23 $\pm$ 2 Credits VI Sem: 23 $\pm$ 2 Credits	Total = 46 credits
4th Year	VII Sem: 19 $\pm$ 2 Credits VIII Sem: 11 $\pm$ 2 Credits	Total = 30 credits
	▪ VIII Semester: student is allowed to do industry internship for a full semester. Semester Internship shall be considered as Project work. ▪ VIII Semester shall include Project, Seminar, and electives without any core courses or labs. ▪ Students doing internship may be allowed to do these courses online and write exams. ▪ Student can do the courses of VIII semester in VII semester so as to enable themselves for industry internship. However, the grades of these courses will be reflected in VIII semester Grade sheet only.	
All the departments are required to maintain year wise credits equally. However, there can be a small variation between the odd and even semesters. This may ensure the uniformity in EXIT policies across the Institute.		

B. Induction Program:
- ➤ No credits, but mandatory to get satisfactory
- ➤ Make-up for induction programme shall be conducted during the weekends of the 1st Year

The induction program for I year B.Tech. student shall include the following:
- Familiarization with Rules and Regulations of the Institute
- Orientation on admitted Branch - curriculum, Software tools, career opportunities, etc.
- Life and Career skills, Innovation Skills, etc.
- Human Values & Professional Ethics
- Lectures and Workshops by eminent people
- Physical Activities -- Sports, Yoga and Meditation, Tree Plantation, etc.
- Creative Arts / Literature
- Career Counselling – Additional skills required
- Visits to local areas
- Assessment, Feedback and report on the program

C. Introducing Minor / Honors program

- Each department has to offer at least one Minor and one Honors programs
- A student is permitted to do either Minor or Honors only, but not both.
- Minimum number of students for Minor is 10, whereas no restriction for Honors
- Maximum number of students in Minor/Honors is 60.
- Number of credits for Minor / Honors is 18 with 6 courses or (5 courses + 1 project for 3 credits).
- Students with 7.0 / 8.0 CGPA without any "F" Grade / backlog are only allowed to do Minor / Honors respectively.
- Minor start from 3rd Sem. whereas Honors start from 5th Sem onwards.
- Students shall not have any backlogs in the subsequent semesters of the regular program in order to keep the registration for Minor / Honors active.
- A student shall pass in all the courses registered under Minor / Honors in the first attempt in order to get it awarded.
- The registration of a student in Minor/Honors ceases if he/she fails in any course.
- There will be no makeup exams for any of the courses in Minor / Honors
- Some of the courses in Honors can be at PG level.
- Some of the courses in Minor can be same as that of the regular UG courses.

D. B.Tech. students to opt for M.Tech. (200 credits)

- Students should earn 200 credits
- Students doing Honors are permitted to opt for M.Tech. in the relevant specialization based on the subjects taken in Honors.
- They need not do a project as part of their B.Tech. However, their M.Tech. project will start from 8th semester itself.
- They have to study a few more courses from the respective M.Tech. Specialization as suggested by the department from 8th semester itself.
- A maximum of 2 or 3 seats may be permitted in a specialization.
- Students, who are in their V year having a valid GATE score will be paid stipend.

E. B.Tech. students to opt for Ph.D.

- NITW B.Tech. students having CGPA more than or equal to 8.50 (for general) / 8.00 (for SC/ST) with a valid GATE score are eligible for Full Time Ph.D.
- The student has to complete 18 credits and all the other rules and regulations are same as that of other Full-Time PhD scholars.
- Based on the merit among the applicants and also the performance in the interview, a max. of 2 seats are permitted from the No. of Ph.D. admissions allotted to the dept.

III. Curriculum Revision for PG programs

A. Curriculum - M.Tech. program:

Category Description	Credits
Professional Core Courses (PCC)	24 - 33
Professional Elective Courses (PEC)	12 – 18
Comprehensive Viva-Voce	2
Dissertation Work	32 (12 + 20)
Seminar – I and II	2
	80

B. Exit policy for M.Tech.:

- The student is permitted to exit with a PG Diploma based on the student's request at the end of first year subjected to passing all the courses in first year and meeting the eligibility requirements.

C. Self-finance M.Tech. program:

- ➢ Each M.Tech. program is permitted with 5 additional seats under self-financing.
- ➢ The admissions can be given to the meritorious students in the written exam and interview conducted by the Department.
- ➢ Candidates will be shortlisted for the interview based on the performance in the written exam.

D. PG (M.Tech./M.Sc./M.Sc. (Tech)/MBA) to Ph.D:

- ➢ NITW students in the above PG programs with a CGPA more than 8.50 (for Open/OBC) / 8.00 (for SC/ST) by the end of first year (end of second year in case of M.Sc. (Tech.)) are eligible for Full Time Ph.D.
- ➢ No PG degree will be given for these students.
- ➢ The selection of the student is based on the merit and the interview conducted by the department. Allotment of the supervisor will be done as per the existing rules. All other guidelines are as per regular PhD.
- ➢ A maximum of 25% seats may be allotted from the quota of the Ph.D. admissions allotted to the department.

E. Integrated M.Sc. Program:

- ➢ **Key Points:**
  - The intake is 60 with 20 each in Physics, Chemistry and Mathematics
  - Integrated M.Sc. program is for 5 years with 200 Credits.

- ➢ **Common Curriculum for first THREE Years:**

Category Description	Credits
Induction Program (Two Weeks)	No credits but mandatory
Professional Core Courses (PCC)	69-72
Professional Elective Courses (PEC)	18-21
Engineering Science core (ESC)	12-15
Open Elective Courses (OEC)	3 - 6
Mandatory Courses*	6 Courses
Humanities and Social Science Courses (HSC)	12 - 15
Term / Minor Project	2
Seminar	1
	120

- Each audit course content is expected to be worth of 2 credits
- Games and Sports and Yoga in EAA can be made compulsory in both the semesters of first year.
- the remaining courses [for ex. Language and Writing Skills, Environmental Science, IPR, Professional Ethics, Human Values, Communication Skills, Foreign/Indian Languages, Indian Heritage and Culture, History of Science,

Constitution of India, Entrepreneurship, etc.] can be done from 2nd year onwards with one course in each semester. These courses may be done in MOOCs.
- Mode of evaluation, including the end semester exam is left to the teacher.

➤ **Curriculum for the last two years of integrated M.Sc. program:**

Category Description	Credits
Advanced Science Core (ASC)	48-51
Professional Elective Courses (PEC)	15-18
Dissertation	10
Comprehensive Viva-Voce	02
Seminar – I and II	02
	80

➤ **EXIT Policy:**
- The student is permitted to exit with a B.Sc. at the end of third year based on the student's request subjected to passing all the courses in first three years and meeting the eligibility requirements.

F. Curriculum revision for II Years M.Sc. programs:

Category Description	Credits
Professional Core Courses (PCC)	48-51
Professional Elective Courses (PEC)	15-18
Comprehensive Viva-Voce	02
Dissertation Work	10
Seminar – I and II	02
	80

G. Curriculum revision for III Year M.Sc. (Tech.) program:

Category Description	Credits
Professional Core Courses (PCC)	57-60
Professional Elective Courses (PEC)	18-24
Engineering Science core (ESC)	18-24
Dissertation Work	14
Comprehensive Viva-Voce	2
Seminar – I and II	2
	120

H. Curriculum revision for II Year MBA Program (8 quarters):

Category of courses	Credits
Professional Core	60 - 66
Professional Elective Courses	22 - 28
Practicum/ Internship	2
Dissertation (8th Quarter)	10
	100

I. Curriculum revision for III Year MCA program:

Category Description	Credits
Professional Core Courses (PCC)	75-81
Professional Elective Courses (PEC)	18-21
Humanities and Social Science Core	06-09
Dissertation Work	12
Comprehensive Viva-Voce	2
Seminar	1
	120

IV. PhD program:

A. Course work

- Total no. of credits of course work is 12 / 18 for research scholars joined with PG and UG respectively.
- Ph.D. students shall necessarily do at least one course from the institute level courses and three courses from the department level courses, as suggested by the DSC. All the courses shall be of 3 credits only.
  - ❖ Institute Level courses: Applied Mathematical Methods, Modelling and Simulation, Soft Computing Techniques, Experimental Techniques, Design and Analysis of Experiments, AI & ML, Data Mining, IPR, Research Methodology, Scientific Communication, etc.
  - ❖ Department Level courses: few common courses must be designed by the department at higher level for all the scholars. M.Tech. students may also be permitted to take these courses.
- If recommended by the DSC, student can also do a course under Self Study / MOOCs.

B. Comprehensive Exam

- Comprehensive Exam for PhD may be completed within 1½ year (with a maximum number of 2 attempts).
- Comprehensive Exam shall be in two parts:
  - ❖ Part-1: Written Test
    - Written exam in a subject (self-study) where syllabus is written comprehensively by including all the topics relevant to his PhD including methods and tools.
    - DSC members shall frame the syllabus and contribute in setting the Qn. Paper. Student has to score at least 50 marks in this comprehensive written exam.
  - ❖ Part-2: State of the art seminar by the scholar on the proposed research area with the formulation of objectives to the DSC.
- If the candidate fails to complete comprehensive exam within 1½ years and with the 2 attempts, he may be given an option to convert to MS or quit the institute without any degree.

C. Publications

- The Ph.D scholar is required to publish at least TWO papers in SCI / SCIE / ESCI / SCOPUS/Open Access journals of SCI, with one publication must be in SCI.

- Scholars from SoM shall publish TWO papers in SCI / SCIE / ESCI / SCOPUS / Open Access journals of SCI / *ABDC journals*, with one publication must be in *ABDC journal*
- Scholars from H&SS to publish 3 National and 2 International papers in peer reviewed journals.

D. Panel of examiners
- Supervisor shall propose the panel of examiners along with their CVs including their journal publications in the last 3 years and the DSC shall recommend the panel based on the relevance of the publications to the PhD topic.

E. Exit Policy
- The scholars have to present the progress of the research work to the DSC at the end of each semester. The DSC has to award a 'Satisfactory' or 'Un-Satisfactory' in the progress report at the end of each semester.
- The scholar is allowed to exit with a lower degree than admitted can happen in the event of the following:
  - based on the student's request
  - if the concerned DSC and DAC PG&R recommends termination of studentship on the grounds of unsatisfactory progress in research (two Un-Satisfactory reports in the consecutive progress reports)
  - if the scholar could not clear Comprehensive exam within 1½ years
- The lower degree allowed for such scholars is M.S. by Research.
- The M.S. by Research degree will be awarded to the above students only on completion of required course credits for Ph.D. as prescribed by the DSC and on successful viva-voce examination after submission of dissertation work.
- These students are also required to publish ONE paper in SCI/SCIE/ESCI/SCOPUS/ Open Access Journals of SCI.
- The registration of the student from Ph.D. program shall be terminated immediately on the approval of the Senate for exit and the student shall be deemed as registered for M.S. by Research for submission of dissertation/thesis.
- The stipend shall also be reduced from **FULL** to **HALF** from the date of conversion. However, the total period of stipend is only for 3 years from the date of registration to PhD for all such candidates.

IV. Curriculum Revision - Time Table
- Slot Time Table is to be followed.
- To provide flexibility for the students in registering elective courses offered by other departments, it is suggested to categorize the courses under slots at the beginning of each semester.
- Also, for the ease of introducing Minor / Honors, a separate slot in the Time-Table may be specified for Minor / Honors.

V. ONE Year PG Diploma program
Eligibility Criteria:
- UG degree in respective discipline with 6.5 CGPA/60% for Open & OBC / 6.0 CGPA/55% for SC/ST.
- Work Experience: Min. 2 years (Desirable)

- Program specific criteria as decided by the respective department
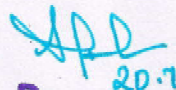
➤ **Selection Criteria:**
- Written Test
- Candidates will be shortlisted for interview

➤ **Intake:**
- If offered in the existing PG Specializations: Max. 10 students
- New Programs: Minimum 20 students

➤ **Course Structure:**
- Duration: 1 year
- Two Semester Course Work + 2 months Project Work after the course work
- It is desirable to design the course structure in line with first year PG program
- The total number of credits shall be 45 - 50

20.7.21
Dean (Academic)
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