# THE XXVII<sup>th</sup> MEETING OF SENATE

## NATIONAL INSTITUTE OF TECHNOLOGY MEGHALAYA

#### **MINUTES**

Day: Monday

Date: 13.12.2021
Time: 10:30 AM

Venue: Conference Room

Mode: Hybrid Mode (via G-Meet)

#### NATIONAL INSTITUTE OF TECHNOLOGY MEGHALAYA

#### Minutes of the XXVII<sup>th</sup> Meeting of the Senate held on 13.12.2021

The XXVII<sup>th</sup> Meeting of the Senate of NIT Meghalaya was held on 13<sup>th</sup>Dec2021 at the Conference Room of the Institute through hybrid mode (online as well as face-to-face) from 10:30 AM onwards. The following members attended the meeting:

1.	Professor B.B. Biswal, Director, NIT Meghalaya	-Chairman
2.	Prof. N.C. Shivaprakash, IISC Bangalore	-Member
3.	Prof. M. Panda, NIT Rourkela	-Member
4.	Prof. N. Tripathy, IIM, Shillong	-Member
5.	Prof. G. Panda, Professor, NIT Meghalaya	-Member
6.	Prof. H. C. Das, Professor, NIT Meghalaya	-Member
7.	Dr. C. Marthong, Dean (Planning & Development)	- Spl. Invitee
8.	Dr. G. Dutta, Dean (Research & Consultancy)	- Spl. Invitee
9.	Dr. A. Banerjee, Chairman, IQAC, NIT Meghalaya	- Spl. Invitee
10.	Dr. R. N. Mahapatra, HoD, ME, NIT Meghalaya	- Spl. Invitee
11.	Dr. P. S. Mangang, HoD, HS, NIT Meghalaya	- Spl. Invitee
12.	Dr. A. P. Singh, HoD (i/c), CS, NIT Meghalaya	- Spl. Invitee
13.	Dr. P. Rangababu, HoD, EC, NIT Meghalaya	- Spl. Invitee
14.	Dr. S. Debbarma, HoD, EE, NIT Meghalaya	- Spl. Invitee
15.	Dr. B. Kumbhakar, HoD, MA, NIT Meghalaya	- Spl. Invitee
16.	Dr. A. Nath, HoD, PH, NIT Meghalaya	- Spl. Invitee
17.	Dr. S. Sahoo, HoD (i/c), CE, NIT Meghalaya	- Spl. Invitee
18.	Dr. A. S. Roy, HoD (i/c), CY, NIT Meghalaya	- Spl. Invitee
19.	Dr. R. S. Das, PIC-CCD, NIT Meghalaya	- Spl. Invitee
20.	Dr. S. Thokchom, PIC (PG&R), NIT Meghalaya	- Spl. Invitee
21.	Dr. R. Roy, PIC (UG), NIT Meghalaya	- Spl. Invitee
22.	Mrs. A. Rai, Asst. Registrar (AA), NIT Meghalaya	- Spl. Invitee
23.	Mr. B. N. Choudhury, Registrar, NIT Meghalaya	-Secretary

A Senate member, Prof. A. Bhattacharjee from NIT Meghalaya could not attend the meeting due to prior commitments and leave of absence was granted to him.

At the outset, the Chairman, Senate welcomed the members and the special invitees to the twenty-seventh meeting of the Senate and also introduced the new external Senate members, Prof. M. Panda, to the gathering. Thereafter, the agenda items of the day were taken up.

## Item No.1: Confirmation of Minutes of the XXVIth Meeting of the Senate of NIT Meghalaya held on 17.09.2021.

The XXVI<sup>th</sup> meeting of the Senate of the Institute was held on 17.09.2021 through hybrid mode (online as well as face to face). The minutes of the meeting were circulated amongst the members of the Committee for their comments/observations. No comments or observations were received from any of the distinguished members. Therefore, the Senate confirmed the minutes of the XXVI<sup>th</sup> Meeting of the Senate.

<u>R1/SENATE-XXVII/21</u>: The Senate **Resolved to Confirm** the minutes of the XXVIth Senate Meeting held on 17th Sep 2021.

### Item No.2: Action Taken Report on the Decisions of the XXVIth Meeting of the Senate.

The actions taken on the decision of the XXVI<sup>th</sup> Meeting of the Senate were circulated amongst the members as a part of the agenda items. During the meeting, the actions taken were elaborately deliberated and the Senate members noted the actions taken by the Institute.

**R2/SENATE-XXVII/21:** The Senate **Noted** and **Confirmed** the actions taken on the resolutions of the XXVI<sup>th</sup> Senate Meeting.

#### **Items for Approval**

### Item No.3: Proposal on Selecting the Best Thesis and Best Project Awards of PG Students.

The proposal of the Committee which was constituted to frame the guidelines for the "Best Thesis Award" to the deserving M. Tech student and "Best Project Award" to the deserving M. Sc student was presented during the meeting.

The Senate deliberated on the proposal at length and suggested the following points:

- 1) The first stage screening of applications shall be carried out at the Department level.
- 2) The second stage screening shall be carried out at the Institute level by constituting two Committees with External Experts of respective Departments/research domains and Dean (AA) as the Convener.
- 3) Selected students for the Best Thesis and Best Project may be awarded on the pre-Convocation day.
- 4) Possibilities of finding suitable sponsors for cash-prize may also be considered.

**R3/SENATE-XXVII/21:** The Senate **Resolved to Approve** the revised proposal on selecting the "Best Thesis" and "Best Project" Awards of PG students with incorporation of the above mentioned points as suggested and to implement the scheme from this academic year onwards.

## Item No.4: Signing of Memorandum of Understanding (MoU) with IIT Hyderabad.

The Senate was briefed that IIT Hyderabad has expressed interest to build special relations with NITs of the North-East states in consideration to the recommendations of the Kakodkar Committee (page 25- Chapter 2.6)in which it is mentioned that the best B. Tech students of NITs can carry out the Internship program along with final year study at IITs and then they can also pursue the PhD program, if eligible. In this context, it was desired that if NIT Meghalaya is interested in this program, an individual MoU may be signed by both the parties so as to start implementing the program.

The Senate expressed its appreciation to the proposal from IIT Hyderabad and suggested making curriculum changes in accordance with the proposal for final year B. Tech, if required. The Senate also recommended presenting the updated curriculum in the next Senate meeting.

The Senate further approved to intimate IIT Hyderabad for initiating the MoU proposal and that the signing of MoU may be possible after final year curriculum change, if any.

**R4/SENATE-XXVII/21:** The Senate **Resolved to Approve** to intimate IIT Hyderabad for initiation of MoU process and MoU signing after incorporating curriculum changes, if any, in accordance with the proposal.

#### Item No.5: Minutes of XIXth APC Meeting held on 3rd Dec, 2021.

The XIXth Meeting of the Academic Programmes Committee was held on 3<sup>rd</sup> Dec 2021and the matters related to academic affairs were presented before the Senate for discussion and appropriate decisions.

S1. No	Minutes of XIX th APC Meeting					
i	Changing of Course Codes to 500 level under M. Tech, ME Dept.:					
	With reference to the Senate Resolution R3(10)/Senate-XIII/2017, the Senate recommended to offer 500 & 600 level courses for the Ph.D Course Work along with one compulsory Ph.D Course for the Department of 700 level. In view of this, the department has requested to change the codes of the following 700 level courses to 500 level courses. The DAC Minutes and curriculum are presented before the Senate.					
	a) ME 702: Manufacturing Science (3-0-0:3) b) ME 704: Advanced Control Systems in ME (3-0-0:3) c) ME 706: Fracture Mechanics (3-0-0:3)					
	The Senate deliberated on the proposal and resolved to approve it after suggesting that the Course Instructors for the above mentioned courses should not be the Supervisor of the Ph.D scholars if the courses are offered only for Ph.D. The Senate further mentioned that the courses for Ph.D should usually be offered along with the PG students. However, under special cases, the Department may offer few courses only for the Ph.D scholars under self guided mode, provided that the same has been recommended by the DAC and approved by the Competent Authority.					
	<b>R5(i)SENATE-XXVII/21:</b> The Senate <b>Resolved to Approve</b> the change of existing course codes to 500 level under M. Tech, ME, as proposed, after suggesting to ensure that the Course Instructors for the above mentioned courses should not be the Supervisor of the Ph.D scholars if the courses are offered only for Ph.D. Further, the Senate also suggested that the courses for Ph.D should usually be offered along with the PG students. However, under special cases, the Department may offer few courses only for the Ph.D scholars under self guided mode, provided that the same has been recommended by the DAC and approved by the Competent Authority.					
ii	New 500 Level Courses under M. Tech, EC Dept:					
	The EC Department proposed the following new 500 Level courses along with the Syllabus in the IQAC Formats (Presented as <b>Annexure -5)</b> :					

SL. no	Course Name and Credit	Proposed Revised Course Code
1	Electronic System Design (3-0-0: 3)	EC 521
2	Advanced Digital Signal Processing (3-0-0: 3)	EC 523
3	Speech Signal Processing and Coding (3-0-0: 3)	EC 525
4	Adaptive and Statistical Signal Processing (3-0-0: 3)	EC 549
5	Digital Image Processing (3-0-0: 3)	EC 529
6	Deep Learning (3-0-3:3)	EC 531
7	Microelectronics& Microsensors (3-0-0:3)	EC 533
8	Advanced Microprocessor & Microcontroller (3-0-0: 3)	EC 536
9	Digital System Design (3-0-0: 3)	EC 538
10	Antenna theory & Propagation (3-0-0: 3)	EC 540
11	Digital IC Design (3-0-0: 3)	EC 542
12	Array Signal Processing (3-0-0:3)	EC 544
13	ML for Comm & signal Processing (3-0-0:3)	EC 546
14	Signal Detection and Estimation Theory(3-0-0: 3)	EC 548

**R5(ii)SENATE-XXVII/21:** The Senate **Resolved to Approve** the new 500 level courses under M. Tech, EC, as proposed after suggesting to ensure that the Course Instructors for the above mentioned courses should not be the Supervisor of the Ph.D scholars, if the courses are offered only for Ph.D. Further, the Senate also suggested that the courses for Ph.D should usually be offered along with the PG students. However, under special cases, the Department may offer few courses only for the Ph.D scholars under self guided mode, provided that the same has been recommended by the DAC and approved by the Competent Authority.

#### Item No.6: Results, Autumn 2021 (except for 1st Sem UG, PG &Ph.D).

The result analysis of Autumn 2021 End-Term Examination (excluding 1stsem UG, PG &Ph.D) was presented before the Senate by the PICs (AA). The Senate went through the results thoroughly and provided its suggestion on the following courses:

- 1) Power Electronics (EE 303): As 7 students have been awarded with FF grades, the Senate suggested the Department to reanalyze the grades awarded and resubmit at the earliest.
- 2) Technical Report and Presentation on Mini Project/Internship Work (CE 603): The Senate suggested the Department to reanalyze the grades of all the 17 students for even distribution of grades and resubmit at the earliest.

The Senate approved the rest of the results as presented and further authorized the Chairman, Senate for approving the updated results of Autumn 2021 (excluding 1st Sem UG, PG &Ph.D) for declaration on 17<sup>th</sup> Dec, 2021 after incorporation of the above mentioned suggestions by the respective departments. The Senate also suggested that all the results should be thoroughly analyzed by the UGPEC & PGPEC before placing it to the Senate in future.

**R6/SENATE-XXVII/21:** The Senate **Approved** the results of Autumn 2021 as presented and further authorized the Chairman, Senate for approving the updated results of Autumn 2021 (excluding 1st Sem UG, PG &Ph.D) for declaration on 17<sup>th</sup> Dec, 2021, after incorporation of the above mentioned suggestions by the respective departments.

#### Item No. 7: Proposal for "Flexible Absolute Grading Scheme"

The Senate was briefed about the "Flexible Absolute Grading Scheme", which was proposed by the Internal Quality Assurance Committee of the Institute against the existing "Relative Grading Scheme". It was elaborated and presented during the meeting by the IQAC Chairman.

The Senate deliberated on the above points at length and recommended to send the proposal to each Department for deliberation in the Departmental Academic Committee (DAC) in terms of pros and cons. The reports of the DACs should be analyzed further by the Academic Programmes Committee (APC) and the observations/recommendations of the APC may be placed before the Senate for discussion and appropriate decision.

<u>R7/SENATE-XXVII/21</u>: The Senate **Resolved to Recommend** that the proposal for implementing the "Flexible Absolute Grading Scheme" should be first discussed thoroughly in the Departmental Academic Committee (DAC). The reports of the DAC should be discussed further in the Academic Programme Committee (APC) and the final observation/recommendation may be placed before the Senate for deliberation and appropriate decision.

#### Item No. 8: Appointment of Adjunct Faculties in the Institute.

For appointment of two new Adjunct Faculties in the EC & ME departments of the Institute, the recommendations of the Department Academic Committees were analysed by the ACoFAR and with the concurrence of the Competent Authority, the following list was placed before the Senate during the meeting.

Sl. No	Dept.	Proposed Adjunct Faculty	Affiliation
1.	EC	Prof. N. C. Shivaprakash	Ex-Professor, IISC Bangalore, EC Dept.
2	ME	Prof. R. K. Sahoo	Professor, NIT Rourkela, ME Dept.

The CVs of the Adjunct Faculties mentioned above were presented before the members. The Senate deliberated on the matter and agreed to approve the proposal for fresh appointments of two Adjunct Faculties in the two departments, for a period of three (3) years from the date of issue of the offer of appointment letter.

**R8/SENATE-XXVII/21:** The Senate **Resolved to Approve** the proposal for fresh appointments of two Adjunct Faculties in the two departments, for a period of three (3) years from the date of issue of the offer of appointment letter.

## Items for Ratification

#### Item No. 9: Academic Calendar, Autumn 2021 (for 1st Semester UG).

The Senate was briefed about the Academic Calendar for Autumn 2021 (for 1st Semester UG) which was approved by the Chairman Senate.

Autumn Semester, 2021 (1st Semester UG)

{through webinars		
Sat-Sun)		
ri)		
pre-registration		
Dec 18, 2021- Jan 02, 2022 (Sat-Sun)  Feb14-18, 2022 (Mon-Fri)  Feb 28, 2022 (Mon)  Mar 25, 2022 (Fri)  Mar 31-Apr 01, 2022 (Thu-Fri)  Apr 01, 2022 (Fri)  Apr 04-08, 2022 (Mon-Fri)		

**R9/SENATE-XXVII/21:** The Senate **Resolved to Ratify** the Academic Calendar of UG 1<sup>st</sup> Semester, for Autumn 2021 as presented.

## Item No.10: Revised list of Awardees for Institute Silver Medal 2021 in Master of Science, awarded during the 8th Convocation of the Institute through virtual mode.

The Senate was briefed that the initial list of awardees for Institute Silver Medals which was placed before the Senate in its XXVIth Senate meeting held on 17th Sep, 2021 included the name of a M.Sc. student, D. H. Goyani (S19MA003), from the Department of

Mathematics who had not fulfilled the eligibility criteria in terms of minimum of minimum CGPA. The list was hence revised and his name was excluded from the list of Silver Medal awardees with the approval of the Chairman, Senate. The updated list was approved by the BoG in its XXVIIIth Meeting held on 29th Sep, 2021 as under:

List of Awardees for Institute Silver Medal 2021 in Master of Science						
1		2019-21	CY	S19CH011	Archita Goswami	9.78
3			PH	S19PH007	Pallabi Saha	9.35

<u>R10/SENATE-XXVII/21</u>: The Senate **Resolved to Ratify** the revised list of awardees for Institute Silver Medal 2021 in M. Sc, awarded during the 8th Convocation of the Institute through virtual mode.

## Item No.11: Change of Course Code & Credit for Wireless and Mobile Communication (EC 511).

It was briefed to the Senate that the Department of Electronics and Communication Engineering proposed to change the code and credit for the existing course Wireless and Mobile Communication (EC 511) opted by new Ph.D scholars during Autumn 2021 as the course code was conflicting with another course, Physics of Semiconductor -EC 511 (3Cr) offered by the Department as an elective course to 1st Semester M. Tech. The proposal was approved by the Chairman, Senate.

<u>R11/SENATE-XXVII/21</u>: The Senate **Resolved to Ratify** the change of course code and credit for EC 511-Wireless and Mobile Communication.

## **Reporting Items**

### ItemNo.12: Annual Conference on Inter disciplinarity (COIN-2021) Organized by HS Department.

The Senate was briefed that the Department of Humanities and Social Sciences, National Institute of Technology Meghalaya organized its Annual Conference on Interdisciplinarity (COIN-2021)on the theme "Literature, Language, and Culture of North East India" on 19<sup>th</sup>& 20thNovember 2021. The online conference was participated by over 150 resource persons, paper presenters, and listeners from across the country which reflects the academic interest in Northeast literature, language and culture.

**R12/SENATE-XXVII/21:** The Senate **Noted** the Annual Conference on Inter disciplinarity (COIN-2021) organized by HS Department of the Institute.

#### Item No.13: Online Lectures Organized by CE Department.

The Senate was briefed that the Department of Civil Engineering, National Institute of Technology Meghalaya organized two online lectures as under:

- 1) "TECHNOLOGICAL ADVANCES AND APPLICATIONS OF GEOINFORMATICS" on 07/10/2021. The online Lecture was attended by over 50 participants comprising B. Tech, M. Tech and Ph. D scholars of National Institute of Technology Meghalaya.
- 2) "ARTIFICIAL INTELLIGENCE IN CIVIL ENGINEERING" on 28/10/2021. The Lecture was delivered by Pijush Samui, Associate Professor, Department of Civil Engineering, NIT Patna.

**R13/SENATE-XXVII/21:** The Senate **Noted** the online lectures organized by the Civil Engineering Department of the Institute.

## Item No.14: 1st International Symposium & FDP Organized by EE Department.

The Senate was briefed the Electrical Engineering Department of the Institute organized the 1st International Symposium and also a Faculty Development Program (FDP) as under:

- 1) The "1st International Symposium on Sustainable Energy and Technological Advancements (ISSETA 2021)," technically co-sponsored by Springer was held during 24th-25th Sept, 2021.
- 2) FDP on "Emerging Applications of Advanced Power Electronic Converters", during 20th-24thSept, 2021 at NIT Meghalaya. The FDP covered certain specific applications of advanced power electronic converters, where there is increasing demand for improved converter topologies, control techniques, energy management, and more.

**R14/SENATE-XXVII/21:** The Senate **Noted** the 1<sup>st</sup> International Symposium &Faculty Development Program organized by the EE Department of the Institute.

#### Item No.15: PG &Ph.D Admission Details, Autumn 2021.

The Senate was briefed about the details of PG & Ph.D Admissions, 2021as provided in the appended table below.

	Sanctione d Strength	ССМТ	Internationa 1 Students	Sponsored		Total
M.Tech				Full Time	Part Time	Enrolled
CE	20	13	2 (1 ICCR,1 SII)	0	0	15
CS	20	5	1(1 SII)	0	0	6
EC	20	3	0	0	0	3
EE	20	2	0	1	0	3
ME	20	0	0	0	0	0
Total	100	23	3	1	0	27

M.Sc	Sanctione d Strength	CCMN	Direct Admission	TotalEnrolle d
CY	16	13	2	15
MA	16	10	2	12
PH	16	15	1	16
Total	48	38	5	43

Ph.D	Full Time	Full Time Project	Part Time	TotalEnrolle d
CE	9 *	0	2	11
CS	4	2	12	18
EC	8	1	7	16
EE	4	0	5	9
ME	2	1	3	6
CY	3	0	2	5
PH	1	0	0	1
MA	0	0	0	0
HS	0	0	2	2
Total	31	4	33	68

#### \* 1 International Student admitted through ICCR

The Senate noted the above admission data provided for Autumn 2021 and expressed its concern over the decline in the number of M. Tech students across many departments.

The Senate recommended that all the Engineering Departments shouldconduct meetings at the Department Level to analyze various aspects for decline in admissionsright from removing/introducing new specialization (but keeping one specialization with the same approved student strength of 20 numbers), upgrading the Lab facilities, Research Collaborations, future prospective of M. Tech students graduating from the programme, higher studies of pass out students at different institutes or Universities, placements and provide an analysis report to the Chairman Senate for discussion and appropriate action to enhance the admission strength of M. Tech students.

**R15/SENATE-XXVII/21:** The Senate Noted the admission details of the Institute for Autumn 2021 and recommended that every department should provide an analysis report to the Chairman, Senate with suggestions and ideas for discussion and appropriate action to enhance the admission strength of M. Tech students, as mentioned above.

#### Item No.16: Any other Items with the Permission of the Chair

As there were no other items to discuss, the meeting concluded with thanks to and from the Chair.

(B.N. Chou hary)
Registrar and Secretary