

NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR

**Minutes of the
24th Senate Meeting**



Day: Friday

Date: 18/02/2022

Time: 11.00 AM

(Via Composite Mode)

MINUTES OF THE 24th SENATE MEETING HELD ON 18th February, 2022

The 24th Senate Meeting of National Institute of Technology Manipur was held on 18th February, 2022 at 11.00 AM via Composite Mode.

The following members attended the meeting

❖ Prof. (Dr.) Goutam Sutradhar Director, NIT Manipur	:	Ex-officio Chairman
❖ Prof. Memcha Loitongbam Manipur University	:	Member
❖ Dr. Debasish Bhattacharya NIT Agartala (Via Video Conference)	:	Member
❖ Prof. Chiranjib Bhattacharjee Jadavpur University (Via Video Conference)	:	Member
❖ Dr. Jisnu Basu Saha Institute of Nuclear Physics, Kolkata (Via Video Conference)	:	Distinguished Invitee
❖ Dr. Prabir Kumar Mukhopadhyay Damodar Valley Corporation (Via Video Conference)	:	Distinguished Invitee
❖ Prof. Rajesh Kumar Bhushan Dean (AA), NIT Manipur	:	Member
❖ Dr. Ng. Romeji Singh HoD, Civil, NIT Manipur	:	Member
❖ Dr. Shuma Adhikari HoD, EE, NIT Manipur	:	Member
❖ Dr. Manoj Kumar HoD, ECE, NIT Manipur	:	Member
❖ Dr. Kh. Johnson Singh HoD, CSE, NIT Manipur	:	Member
❖ Dr. Dushyant Singh (for HoD) Mechanical Engg., NIT Manipur	:	Member
❖ Dr. Ch. Barchand Singh HoD, Mathematics Deptt., NIT Manipur	:	Member
❖ Dr. Bibhu Prasad Swain HoD, Physics Deptt., NIT Manipur	:	Member
❖ Dr. Chandi Charan Malakar HoD, Chemistry Deptt., NIT Manipur	:	Member
❖ Dr. Sangeeta Laishram HoD, HSS, NIT Manipur	:	Member
❖ Dr. Th. David Singh Registrar (i/c), NIT Manipur	:	Secretary

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The Director invited the Registrar (i/c) to initiate the proceedings on the agenda items.

ITEM NO. 24.1: Confirmation of the minutes of the 23rd Senate meeting held on 25/11/2021 via Composite mode

The 24th Senate meeting confirmed the minutes of the 23rd Senate meeting held on 25/11/2021.

ITEM NO. 23.2: Action taken on the decision of the 23rd Senate Meeting held on 25/11/2021 via Composite mode

The actions taken on various decisions of the 23rd meeting of the Senate are as follows:

Sl. No.	Item No.	Agenda	Decision Taken	Action Taken	Remarks
1.	ITEM NO. 23.3	To consider and approve the starting of Post Doctoral programme in ECE Department	The Senate noted that Post Doctoral Program is not a regular programme and opined that there is no point of putting this in the Senate	Noted	Noted
2.	ITEM NO. 23.4	Discussion about Ph.D students who had submitted Ph.D thesis without any SCI/SCIE publications in Science and Engineering subjects	The Senate approved the recommendation of the Journal Verification Committee meeting held on 22/10/2021 and accordingly permitted to send the Ph.D thesis of Loukrakpam Chandramani (15PCE003) for examination as a special case, as his Ph.D course period (6 years for regular students) had already expired.	Complied.	Noted
3.	ITEM NO. 23.5	Discussion about Ph.D scholars in Humanities and Social Sciences subjects who had submitted Ph.D thesis without any SCI/SCIE publications	The Senate approved the recommendation of the Journal Verification Committee meeting held on 22/10/2021 and accordingly permitted Kshetrimayum Momo (15PEN001) to submit the Ph.D thesis for examination as a special case, as his Ph.D course period (6 years for regular students) had already expired.	Complied.	Noted
4.	ITEM NO. 23.6	To consider and approve to provide provisional degree certificate to students who had passed their degree not in usual May-June of that particular year and for providing Original Degree certificate in the 9 th Convocation	The Senate approved to issue provisional degree certificate and for awarding the Original Degree certificate in the 9 th Convocation to Maisnam Luwanganba Singh (12UEE012), Ketha Ganesh (17205002) and Rohit Singh Pheiroijam (18205002). The Senate also decided that provisional degree could be given to the students any time in the year with the approval of Director but the final degree certificate will be provided in the next Convocation only.	Noted.	Noted

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5.	ITEM NO. 23.7	To consider and approve for an advance of 50% processing fee for Patent Filing from PDA grant	The Senate recommended an advance of 50% processing fee for Patent Filing from CPDA grant subject to Finance Committee and BoG approval.	Noted. BoG approved payment of 50% processing fee for patent filing from IRG.	Noted
6.	ITEM NO. 23.8	To ratify the seat matrix for CSAB-2021 with EWS reservation	The Senate ratified the B Tech seat matrix for CSAB-2021 with 10%EWS reservation (as per the guide line from MoE)	Noted.	Noted
7.	ITEM NO. 23.9	To consider and approve the list of criteria recommended by the Journal Verification Committee for Ph.D thesis submission	Based on the Journal Verification Committee meeting held on 22/10/2021, the Senate approved the following criteria for Ph.D thesis submission. 1. In case of Engineering & Science, two SCI/SCIE or one SCI/SCIE and one Scopus (Published or Accepted only journal papers to be considered) and one Conference paper (Oral presentation in National/International Conference). 2. In case of Humanities & Social Sciences, two AHCI/SSCI/Scopus/UGC Approved Care list A (Published or Accepted only journal papers to be considered) and one Conference paper (Oral presentation in National/International Conference) 3. Ph.D scholar should be the first author. Senate did not give any comments on the other sequences of Authors. 4. Above amendments are to be made in Ph.D ordinance. New rules will be applicable for all those Ph.D students, who will be enrolled after amendments are made in Ph.D ordinance.	Noted. Amendments uploaded in the institute website vide No.NITM.3/(42 - Acad)/Dean/20 21/03 dated 27/01/2022.	Noted
8.	ITEM NO. 23.10	To consider and permit Dr. Mukul Gupta, Scientist G of UGC-DAE Consortium for Scientific Research (An Autonomous Institution of UGC, New Delhi) as Co-Supervisor of Ms. Aisyarya Madhuri (Enrollment No. 21409002), Ph.D scholar, Physics Department	The Senate permitted Dr. Mukul Gupta, Scientist G of UGC-DAE Consortium for Scientific Research (An Autonomous Institution of UGC, New Delhi) as Co-Supervisor of Ms. Aisyarya Madhuri (Enrollment No. 21409002), Ph.D scholar, Physics Department based on the receipt of NOC from Dr.Vasant G. Sathe, Centre Director, UGC-DAE Consortium for Scientific Research, Indore Centre.	Noted. Notified Vide No.NITM.3/(3-Acad)/Notice/2 022/02 dated 25/01/2022	Noted
9.	ITEM	To consider and approve	The Senate approved the Guidelines for the	Noted and	Faculty

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	NO. 23.11	the Guidelines for the selection and the format of the application form for the Annual Best Faculty Award, NIT Manipur	selection and the format of the application form for the Annual Best Faculty Award, NIT Manipur approved by the Committee, which held its meeting on 24/11/2021. Guidelines and Application format	uploaded the Application form and guidelines for the selection of best Faculty award.	award are proposed to be given on foundation day of NIT Manipur in Aug, 2022
10.	ITEM NO. 23.12	Discussion on the Re-Structuring and/or Diversification of the present M.Tech (Environmental & Water Resources Engg) in Civil Engineering into three (3) specializations with 5 seats each ($5 \times 3 = 15$) of the existing 15 total seats: (I) Hydro Engg., (II) Environment Engg. and (III) Structural Engg.	Based on the EWS reservation norms to be enforced in CCMT-2022, number of seats in M Tech will increase to 20. Senate decided to continue with the same M.Tech in Civil Engineering with specialization in Environmental & Water Resources Engineering with 10 seats in view of requirement of minimum 10 seats for various scholarship/ fellowships, rank certificate and to facilitate proper distribution of 10 seats among GEN, OBC, EWS, SC and ST candidates.	Noted.	Noted
11.	ITEM NO. 23.13	To consider and approve the proposal for opening of M.Tech (Structural Engineering) course in line with Item No. 23.12 and approval for PG Structural Engineering	In line with Item No. 23.12, the Senate approved the M.Tech in Civil Engineering with specialization in Structural Engineering with 10 seats. Course is to be taught by existing faculty members until additional faculty for Structural Engineering is recruited. The Senate also approved the Course structure appended at Annexure – 2, but the course codes are to be changed as per the scheme of coding approved in ITEM No 23.21 and it will be effective from academic year 2022-2023. Senate also approved to include M.Tech in Civil Engineering with specialization in Structural Engineering in M Tech ordinance.	Noted. Notified Vide No.NITM.3/(3-Acad)/Notice/2022/10 dated 07/02/2022.	Noted
12.	ITEM NO. 23.14	To consider for Post-Facto Approval for PG (PhD/M.Tech) Structural Engineering 5 courses (adopted as PhD coursework which has been previously put to notice) w.e.f. 01/07/2016 as was earlier recommended by the DPPC Meeting.	The Senate ex-post facto approved the PG (PhD/M.Tech) courses in Structural Engineering, which is appended at Annexure-3, but the course codes are to be changed as per the scheme of coding approved in ITEM No 23.21	Noted.	Noted
13.	ITEM NO. 23.15	To consider and approve for Further Extension in time period for PhD	After threadbare discussion and deliberation, the Senate deferred the matter.	Noted.	Noted

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		study programme in respect of PhD R/S, Shri Ngangom Robertson, bearing Enr No. 15PCE001, who have crossed 6 yrs (FT)			
14.	ITEM NO.23.16	To consider and approve for addition of Co-Supervisor of L. Bilashini Chanu, Ph.D scholar (Part-Time), Enrollment No.17401003 of Civil Engineering Department and for Change of External Doctoral Committee member	The Senate approved Dr. Th. David Singh, Associate Professor, Chemistry Department, NIT Manipur as Co-Supervisor of L. Bilashini Chanu, Ph.D scholar (Part-Time), Enrollment No.17401003 and also approved Dr. Shuma Adhikari, Asst. Prof. & HoD, Electrical Engineering Department as the new External member of the Doctoral Committee.	Noted and complied. Notified Vide No.NITM.3/(3-Acad)/Notice/2022/03 dated 25/01/2022	Noted
15.	ITEM NO. 23.17	To ratify the grant of No Objection Certificate for 6 months Internship at InfoEdge India	The Senate ratified the grant of No Objection Certificate for 6 months Internship at InfoEdge India to Dewal Chaturvedi (18105007), Atul Singh (18103010) and Saurav Mandal (18103041)	Noted.	Noted
16.	ITEM NO. 23.18	Discussion on the issue of providing/issuing Rank Certificate to Maitraye Raaj, Enrollment No.17107008 of Mechanical Engineering	After threadbare discussion, deliberation, and examining all the details related to disciplinary action against Maitraye Raaj, Enrollment No.17107008 of Mechanical Engineering because of Ragging that is a very serious offence, the Senate decided not to issue any Rank Certificate to him.	Noted.	Noted
17.	ITEM NO. 23.19	To consider and approve the Standard Operating Procedure (SOP) to be adopted for Online Class during January-June, 2022 session	The Senate approved the Standard Operating Procedure (SOP) for Online Class during January-June, 2022 session	Noted and uploaded in the institute website.	Noted
18.	ITEM NO. 23.20	To consider and approve the Academic Calendar for B.Tech 1 st year students (2021 batch)	The Senate approved the Academic Calendar for B.Tech 1 st year (Online Classes due to COVID-19)	Noted and uploaded in the institute website.	Noted
19.	ITEM NO. 23.21	To consider and approve the Course code guidelines and course for B.Tech, M.Tech, M.Sc and Ph.D	The Senate approved the Course code guidelines and course w.e.f current semesters, as per the course structure XX-Y-M-N, for B.Tech (Civil, ECE, EE, CSE & ME appended at Annexure - 6) M.Tech (Civil, ECE, EE, CSE & ME appended at Annexure - 7) , M.Sc (Physics, Chemistry,	Noted. Notified vide No. NITM.3/(3-Acad)/Notice/2022/04 dated 25/01/2022.	Noted

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			Maths appended at Annexure - 8) and Ph.D(Civil, ECE, EE, CSE, ME, Physics, Chemistry, Maths, HSS appended at Annexure 9). Course structure XX-Y-LM-N will be implemented w.e.f academic year 2022-2023.		
20.	ITEM NO. 23.22	Any other items with the permission of the Chair 1. To consider and approve in the change of category (from regular Ph.D programme to Part-time Ph.D programme) for R.K. Nanao Ningthemcha (Enrollment No. 18405004) of ECE department	1. The 22 nd Senate meeting directed R.K. Nanao Ningthemcha (Enrollment No. 18405004) of ECE department to provide NOC from Directorate of Higher Education, Govt. of Manipur. This time, R.K. Nanao Ningthemcha submitted the NOC issued by the Principal, Nambol L. Sanoi College, Khongkham Awang, Nambol, Manipur. As per Clause 2.1 of the Ph.D Ordinance, the Chairman, Institute Postgraduate Programme Committee (IPPC) on recommendation of the Departmental Postgraduate Programme Committee (DPPC) approves change from one category to another (except to regular category). Form 12 (Change of Category from Regular to Part-Time) has already been approved by the Chairman, IPPC. In view of the above, the Senate approved the change of category (from regular Ph.D programme to Part-time Ph.D programme) for R.K. Nanao Ningthemcha (Enrollment No. 18405004) of ECE department	1. Noted. Notified Vide No.NITM.3/(3-Acad)/Notice/2022/05 dated 25/01/2022	Noted

ITEM NO. 24.3: To ratify the Academic Calendar Jan-June 2022 for B.Tech/M.Tech/MSc continuing students (Online Classes due to COVID-19)

The Senate ratified the Academic Calendar Jan-June 2022 for B.Tech/M.Tech/MSc continuing students (Online Classes due to COVID-19).

ITEM NO. 24.4: To ratify the project training of Paulinjoy Khamrang (18104018) , B.Tech, Final Year, Electrical Engineering Department as an intern in IBM India Private Limited from 12th January,2022 to 11th July, 2022.

The Senate ratified the project training of Paulinjoy Khamrang (18104018), B.Tech, Final Year, Electrical Engineering Department as an intern in IBM India Private Limited from 12th

January, 2022 to 11th July, 2022 as per the terms and conditions of the said company subject to attending all the exams and Project Viva of 8th Semester at NIT Manipur (Online/Offline).

ITEM NO. 24.5: To ratify the 3 months internship at Deloitte (Risk Financial Advisory) from 10/01/2022 to 29/04/2022 by Mr. Tanmay Mishra (18105026) of ECE Department.

The Senate ratified the 03 months internship at Deloitte (Risk Financial Advisory) from 10/01/2022 to 29/04/2022 by Mr. Tanmay Mishra (18105026) of ECE Department as per the terms and conditions of the said company subject to attending the exams and Project Viva of 8th Semester at NIT Manipur (Online/Offline).

ITEM NO. 24.6: Approval for registration fees of continuing students in view of COVID-19

Consequent upon the 18th Senate's approval of fee structure which charged only tuition fees, Grade cards and Exam fees only from the continuing students which is still in practice as COVID is there, the 24th Senate recommended to follow the fee structure as mentioned below for continuing students for the academic session 2021-2022. This may be put to FC for noting.

Programme	Institute Development Fees (Rs.)	All other Fees (Rs.)	Tuition Fee *(Rs.)	Tuition Fee ** (Rs.)	Grade Card fee (Rs.)	Exam Fee (Rs.)	T & P Fee (Rs.)	Degree Certificate Fee (Rs.)	Alumni Fee (Rs.)	Total Fees (Rs.)
B.Tech. (2 nd Sem)	5,000/-	1,000/-	62,500/-		500/-	-	-	-	-	69,000/-
B.Tech. (3 rd , 4 th , 5 th , 6 th & 7 th Sem)	-	-	62,500/-		500/-	-	-	-	-	63,000/-
B.Tech. 8 th Sem	-	-	62,500/-		500/-	-	2,000/-	500/-	300/-	65,800/-
M.Tech (2 nd & 3 rd Sem)	-	-		35,000/-	500/-	-	-	-	-	35,500/-
M.Tech (4 th Sem)	-	-		35,000/-	500/-	-	-	500/-	300/-	36,300/-
M.Sc. (2 nd & 3 rd Sem)	-	-		7,500/-	500/-	250/-				8,250/-
M.Sc. (4 th Sem)	-	-		7,500/-	500/-	250/-		500/-	300/-	9,050/-

*Tuition fees will be waived off for SC/ST/PwD/income < Rs 1 lakh/annum and waived off 2/3 for income between Rs. 1-5 lakh per annum as per MHRD rules for B.Tech students.

** Tuition fees will be waived off for SC/ST students in M.Tech/M.Sc as per MHRD rules.

ITEM 24.7: Amendments in M.Tech Ordinance

Consequent upon the 23rd Senate approval for opening of M.Tech in Civil Engineering with specialization in Structural Engineering from Academic year 2022-23, the 24th Senate approved for amendments in M.Tech Ordinance.

ITEM NO. 24.8: Implementation of EWS reservation in all courses in the institute

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The 24th Senate approved for EWS reservation for M.Tech and M.Sc programme from 2022-2023 academic session. It also noted that EWS reservation has already been implemented for B.Tech and Ph.D programme from 2021-22 academic session.

ITEM NO. 24.9: To consider and approve Dr. Nelson Muthu, Assistant Professor, Mechanical Engineering, IIT Guwahati as the Co-Supervisor of Mr. P. Vicky Kumar (Enrollment No. 20407012)

The 24th Senate approved Dr. Nelson Muthu, Assistant Professor, Mechanical Engineering, IIT Guwahati as the Co-Supervisor of Mr. P. Vicky Kumar (Enrollment No. 20407012) of Mechanical Engineering Department.

ITEM NO. 24.10 To ratify the Comprehensive Examinations of K Athili (19407001) and B Syam Babu (19407002), Ph.D scholars in the Mechanical Engineering Department

The 24th Senate ratified the Comprehensive Examinations of K Athili (19407001) and B Syam Babu (19407002), Ph.D scholars in the Mechanical Engineering Department which were held on 01/09/2021 (Written) and 02/09/2021 (Oral).

ITEM NO. 24.11: Discussion and decision on the Ph.D students leaving Ph.D in between

The Senate noted seriously the issue of students leaving Ph.D in between. Senate approved that penalty has to be imposed to those Ph.D students who leaves Ph.D in between, as they are wasting the Government exchequer/money. The Senate directed that an undertaking/bond has to be signed by the student stating that the fellowship /Scholarship awardee failing to complete successfully his /her studies for reasons other than ill-health, provided that such ill health has not been brought on by his/her own neglect, carelessness or misconduct, the said awardee and the surety shall forthwith pay/refund and without demur to the Institute within 30 (thirty) days from the date of demand, the 50% of the total fellowship amount received from the Institute (NIT Manipur). Format of bond is to be put up at the time of confirmation of minutes.

Ph.D students getting fellowship from other organizations will follow corresponding rules of those organizations.

ITEM NO. 24.12: Discussion regarding the Caution money of M.Sc students

The 24th Senate approved to take Rs. 5000/- as caution money (Academic) from the M.Sc students from the next Academic session (2022-2023) subject to approval of the FC and BoG.

ITEM NO. 24.13: To consider and approve for the extension of Ph.D programme period for Ph.D scholars of Civil Engineering Department

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Considering the prevailing COVID-19 situation, the 24th Senate meeting approved the DPPC recommendation for the extension of Ph.D (maximum) period by 6 months for the following students:

Sl. No.	Name of the student	Regul ar/Part -Time	Enrollment No.	Department	Date of Registration	Date of expiry	1 st Extension	Recommendation s from the DPPC	Extended upto
1.	Ngangom Robertson	Regul ar	15PCE001	CE	05/01/2015	04/01/2021	22 nd Senate given extension upto 03/01/2022. For further extension, 23 rd Senate deferred the matter	The DPPC meeting held on 27/01/2022 recommended for kind consideration and recommendation to the IPPC and Senate for extension of his Ph.D completion timeline by another 6 months from his current semester (till June, 2022)	03/07/2022
2.	Maisnam Bipinchandra Singh	Regular	16PCE002	CE	21/01/2016	20/01/2022		The DPPC meeting held on 11/01/2022 recommended for kind consideration and recommendation to the IPPC and Senate for extension of his Ph.D completion timeline by another 6 months i.e Even Semester, 2022.	19/07/2022
3.	Sarungbam Pipileima Devi	Part-Time	15PCE002	CE	05/01/2015	04/01/2022		The DC of the student has recommended to the Chairman, Senate through IPPC and DPPC to give her a six months extension time from her current enrolled semester (till June, 2022).	03/07/2022

ITEM NO. 24.14: To consider and approve for the extension of Ph.D programme period for Ph.D scholar of Chemistry Department

Considering the prevailing COVID-19 situation, the 24th Senate meeting approved the DPPC recommendation for the extension of Ph.D period for the following student:

Sl. No.	Name of the student	Enrollment No.	Department	Date of Registration	Date of expiry	1 st Extension	Recommendations from the DPPC	Extended upto
1.	Thiyam Samrat Singh	15PCH 004	Chemistry	07/01/2015	06/01/2021	05/01/2022 by 22 nd Senate meeting held on 21/09/2021	Due to the current COVID-19 situation, Mr. Thiyam Samrat Singh was unable to complete his thesis work. Hence, the DPPC meeting held on 06/12/2021 suggested that Mr. Th. Samrat Singh can be allowed to submit his thesis till 31/12/2022.	31/12/2022

ITEM NO. 24.15: Status of enrolment in Academic Bank Credit (ABC)

The 24th Senate was informed that guidelines for implementing Academic Bank of Credit (ABC) are awaited. It is agreed that Registrar will write letter to Registrar of all NITs of northeast and some NITs located in North, South and Western part of country regarding mechanism to implement Academic Bank of Credit in their institute.

Each HOD will encourage the student to register some courses from NPTEL and SWAYAM.

Students are required to undergo training in industry in summer/ winter vacation for at least one month after completion of second year of B Tech. They can do training either after second or third year. They can be given one credit for industrial training.

ITEM NO. 24.16: Department of Physics proposes 5 open elective courses for other Engineering departments

The 24th Senate meeting approved for the introduction of 5 open elective courses for other Engineering departments which is detailed as under:

1. Fundamental of Nano-electronics
2. Material Science
3. Radiological Physics
4. Physics of Polymers
5. Ceramic Processing

Approved Syllabi are appended at **Annexure -1**.

ITEM NO. 24.17: Department of Mechanical Engineering has proposed the following:

1. **Discussion/permission regarding request from Mr. Kumam Sanjoy Singh (Enrolment no. 18107016), B. Tech. student of Department of Mechanical Engineering to grant admission to 3rd year.**

Based upon the recommendation of the DUPC, the 24th Senate meeting has decided to give Mr. Kumam Sanjoy Singh (Enrolment no. 18107016), B. Tech. student of Department of Mechanical Engineering a chance and recommended to allow him to appear the two backlogs of 1st year and also granted permission to admit him in the 3rd year as special case.

2. **Permission for late conduct of Comprehensive examination of Mr. P. Sunil Kumar (Enrolment no. 19407003), Ph.D. scholar under Dr. Anil Kumar Birru, Assistant Professor, Mech. Engg. Dept.**

Based upon the recommendation of the DPPC, the 24th Senate meeting approved for allowing Mr. P. Sunil Kumar (Enrolment no. 19407003), Ph.D. scholar under Dr. Anil Kumar Birru, Assistant Professor, Mechanical Engg. Dept. to complete his comprehensive examination beyond the usual 18 months from the date of registration of Ph.D.

ITEM NO. 24.18: To consider and approve the Migration Certificate format for PhD students

The 24th Senate meeting approved the Migration Certificate format for PhD students. Approved format is appended at **Annexure -2**.

ITEM NO. 24.19: To consider and approve the Ph.D extension of Kh. Nirupama (15PEN003)

Considering the prevailing COVID-19 situation, the 24th Senate meeting approved the DPPC recommendation for the extension of Ph.D (maximum) period by one year:

Sl. No.	Name of the student	Regular/ Part-Time	Enrollment No.	Department	Date of Registration	Date of expiry	Recommendations from the DPPC	Extended upto
1.	Khundrakpam Nirupama	Part-Time	15PEN003	Humanities and Social Sciences	07/01/2015	06/01/2022	The DC meeting held on 02/02/2022 recommended for 1 year PhD extension which is being forwarded by the concerned DPPC	05/01/2023

ITEM NO. 24.20: Discussion on the 3rd Journal Verification committee meeting held on 04/02/2022

1. To recommend three PhD students who have published at 2 least SCI/SCIE journal papers claimed by students to submit PhD theses.

The 24th Senate meeting approved for submission of PhD thesis for the three Ph.D students given below:

SN.	Name of the student	Name of the supervisor	Number of SCI/SCIE journal papers	Number of Scopus journal papers	Number of reputed conference papers	Number of book chapters	Pages	Any Recommendations from DC & DPPC
1	A.K. Kabi (16402001)	Dr. Chandi Charan Malakar, Asst Prof (Chem)	2	0	4	5	3-7	DPPC meeting held on 08/12/2021 recommended for Thesis submission
2	L. Reena Devi (15PCH002)	Dr. Mithun Roy, Asst Prof (Chem)	3	0	0	0	8- 11	DPPC meeting held on 08/12/2021 recommended for Thesis submission
3	M. Mangalleibi Chanu (14PCS005)	Dr. Khelchandra Thongam, Asstt Prof (CSE)	2	2	1	0	12 - 14	DPPC meeting held on 26/10/2021 recommended for Thesis submission

2. To discuss about one PhD student (full time) who has published 1 SCI/SCIE journal paper, three reputed conference papers and one book chapter claimed by student to submit PhD thesis, and has completed 6 year maximum duration of PhD on 21 January 2022.

SN	Name of the student	Name of the supervisor	Number of SCI/SCIE journal papers	Number of Scopus journal papers	Number of reputed conference papers	Number of book chapters	Pages	Any Recommendations from DC & DPPC
1	Malemnganbi L. Chanu (16PCE004)	Dr. Bakimchandra Oinam, Asso. Prof (Civil)	1	0	3	1	15 - 20	The DC, Chairman on 03/12/2021 recommended for thesis submission and was forwarded by the DPPC Chairman

Miss Malemnganbi Chanu (Full time) has completed 6 years, and she has published 1 SCIE journal paper, 3 conference papers and 1 book chapter.

As the above Ph.D student has fulfilled the Ph.D ordinance, 2014 criteria, the 24th Senate approved for submission of her PhD thesis.

3. To discuss about one PhD student (Part time) who has published 1 SCI/SCIE journal paper, 2 Scopus journal paper, and 3 conference papers claimed by student to submit PhD thesis

SN.	Name of the student	Name of the supervisor	Number of SCI/SCIE journal papers	Number of Scopus journal papers	Number of conference papers	Number of book chapters	Pages	Any Recommendations from DC & DPPC
1	Bindya Maibam (16407006)	Dr Anil Kumar Birru, Asst. Prof (ME)	1	2	3	0	21 - 24	The DC meeting held on 10/12/2021 recommended to submit her Thesis and accordingly it was forwarded by the DPPC Chairman

Miss Bindya Maibam Chanu (Part time) has completed 5.5 years, and she has published 1 SCIE journal paper, 2 Scopus journal papers, and 3 conference papers.

As the above Ph.D student has fulfilled the Ph.D ordinance, 2014 criteria, the 24th Senate approved for submission of her PhD thesis.

4. To discuss about two PhD students (Full time) who have published 1 SCIE journal paper, 1 Scopus journal paper and 1 conference papers claimed by students to submit PhD theses

SN	Name of the student	Name of the supervisor	Number of SCI/SCIE journal papers	Number of Scopus journal papers	Number of conference papers	Number of book chapters	Pages	Any Recommendations from DC & DPPC
1	Soibam Sangeeta (17401002)	Dr. P Albino, Associate Prof. (CE)	1	1	1	0	26 -28	The DPPC meeting held on 27/01/2022 recommended to submit their Thesis subject to Verification by the Journal Verification Committee
2	Vivek Laishram (16401002)	Dr. P. Albino, Associate Prof. (CE)	1	1	1	0	29 - 33	

Miss Soibam Sangeeta (Full time) and Mr Vivek Laishram (Full time) have completed 4.5 and 5.5 years respectively and they have published 1 SCIE journal paper each, 01 Scopus Paper, some journal papers, and some conference papers.

The 24th Senate meeting after threadbare discussion and deliberation directed the matter to refer to the DPPC Civil Engineering Department for final recommendation and process as per PhD ordinance 2014.

5. To empower Dean (Academic Affairs) allowing PhD students who have published at least 2 SCI/ SCIE journal papers for Engineering and Science stream and two SSCI/AHCI journal papers for Humanities and Social Sciences to submit theses without recommendation from Journal Verification Committee.

The 24th Senate dropped the agenda.

6. To recommend PhD students who have completed maximum duration of PhD (6 years for full time and 7 year for part time) and have published at least one SCI/ SCIE /Scopus journal paper for Engineering and Science Stream and at least one SSCI/AHCI/Scopus journal papers for Humanities and Social Sciences, and one reputed conference paper to submit theses.

The 24th Senate meeting dropped the agenda.

7. PhD thesis of NIT Manipur students are being sent at present to IITs/NITs/Central University/State University/ other institutions.

The 24th Senate meeting dropped the agenda.

ITEM NO. 24.21: Discussion on Non-Satisfactory performance of some Ph.D students

(a) Maximum two years extension can only be granted beyond the scheduled period to PhD students. There will be no further extension beyond this period. PhD registration will automatically get cancelled after (6+2) years for regular students and cancelled after (7+2) years for part time students.

(b) To improve the performance of the Ph.D students, the 24th Senate meeting after threadbare discussion and deliberation unanimously resolved the following:

1.	On or before (0-2 years) JRF to SRF upgradation	In case of Engineering & Science, the student should have at least 1 (one) (Published or Accepted, only journal papers) SCI (preferably) / SCIE (preferably) or one Scopus (desirable)
		In case of Humanities & Social Sciences, the student should have at least 1 (one) (Published or Accepted, only journal papers) AHCI(preferably)/SSCI(preferable)/Scopus(desirable)/UGC Approved Care list A(desirable).
2.	By the 3 rd year	In case of Engineering & Science, the student should have at least 1 (one) Published or Accepted, only SCI/ SCIE journal paper.
		In case of Humanities & Social Sciences, the student should have at least 1 (one) Published or Accepted, only AHCI/SSCI journal paper.

ITEM NO. 24.22: Any other items with the permission of the Chair

1. **To approve the Degree Certificate format of M.Tech, M.Sc and Ph.D for NAD (National Academic Depository)**

The 24th Senate meeting approved the Degree Certificate format of M.Tech, M.Sc and Ph.D for NAD (National Academic Depository). Approved format are appended at **Annexure -3.**

2. **To consider and approve the Ph.D extension of Khumanthem Gunibala Devi (15PEN002)**

Considering the prevailing COVID-19 situation, the 24th Senate meeting approved the extension of Ph.D period by one year for the following student:

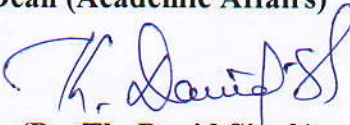
Sl. No.	Name of the student	Regular/Part-Time	Enrollment No.	Department	Date of Registration	Date of expiry	Recommendations from the DPPC	Extended upto
1.	Khumanthem Gunibala Devi	Part-Time	15PEN002	Humanities and Social Sciences	07/01/2015	06/01/2022	The DC meeting held on 02/02/2022 recommended for 1 year PhD extension which is being forwarded by the concerned DPPC	05/01/2023


3. **Utilization of Contingent Expenses under CPDA fund for stationery items and other sundry expenditure**

The 24th Senate meeting approved for issuing an advisory to all regular faculty members to procure their requirements for A4 papers and printer cartridges from their respective CPDA under contingent expenses. It also approved that any excess requirements may be considered only after the allocated fund under Contingent Expenses is utilized.

The meeting ended with vote of thanks to the Chair.


Dean (Academic Affairs)


(Dr. Th. David Singh)
Registrar (i/c)
Secretary, Senate
National Institute of Technology Manipur


(Prof. (Dr.) Goutam Sutradhar)
Director, NIT Manipur
Ex-Officio Chairman, Senate
National Institute of Technology Manipur

ADDITION OF NEW COURSES
Dept. of Physics, NIT Manipur

OPTIONAL ELECTIVE COURSES

Sl. No.	Code	Title	Level	CREDIT L-T-P-C	Course Coordinator
1	PH 651	Fundamentals of Nano-electronics	BTech/MTech/MSc	3-0-0-6	Dr. B.P.Swain
2	PH 653	Material Science	BTech/MTech/MSc	3-0-0-6	Dr. Ibetombi Soibam
3	PH 655	Radiological Physics	BTech/MTech/MSc	3-0-0-6	Dr. L. Herojit Singh
4	PH 657	Physics of polymers	BTech/MTech/MSc	3-0-0-6	Dr. Sh. Lenin Singh
5	PH 659	Ceramic Processing	BTech/MTech/MSc	3-0-0-6	Dr. Mamata Maisnam

PH 651: FUNDAMENTALS OF NANO-ELECTRONICS [3-0-0-6]

UNIT-I: Free Electron Theory & The New Ohm's Law: Why Electrons flow, Classical free electron theory, Sommerfeld's theory, The quantum of conductance, Coulomb blockade, Towards Ohm's law. The Elastic Resistor: Conductance of an Elastic Resistor, Elastic Resistor- Heat dissipation.

Unit-II: Materials for nano-electronics: Semiconductors, Crystal lattices: bonding in crystals, Electron energy bands, Semiconductor heterostructures, Lattice-matched and pseudomorphic heterostructures, Inorganic nanowires, Organic semiconductors, Carbon nanomaterials: nanotubes and fullerenes.

UNIT-III: Ballistic and Diffusive Transport: Ballistic and Diffusive Transfer Times, Channels for Conduction Conductivity, Conductivity: $E(p)$ or $E(k)$ Relations, Counting States, Drude Formula, Quantized Conductance, Electron Density - Conductivity

Unit-IV: Electron transport in semiconductors and nanostructures Time and length scales of the electrons in solids, Statistics of the electrons in solids and nanostructures, Fermi statistics for electrons, the density of states of electrons in nanostructures, Electron transport in nanostructures.

Unit - V: Electrons in traditional low-dimensional structures Electrons in quantum wells: Single modulation-doped heterojunctions, Numerical analysis of a single heterojunction, Control of charge transfer, Electrons in quantum wires, Electron transport in quantum wires, Electrons in quantum dots.

References:

1. Introduction to Nano Science and Technology by S.M. Lindsay.
2. Supriyo Dutta -Lessons from Nanoscience: A Lecture Note Series, World Scientific (2012).
3. Supriyo Dutta --Quantum Transport- Atom to Transistor, Cambridge University Press (2005).
4. Introduction to Nanoelectronics: Science, Nanotechnology, Engineering & Applications by Vladimir.V.Mitin.

PH 653: MATERIAL SCIENCE [3-0-0-6]

Introduction to Material science: Fundamental principles needed to understand the behaviour of materials. Different classes of functional materials and various application ranging from information technology, biotechnology and nanotechnology. Fabrication and compaction: Top down and bottom up approach, Theory of sintering, sintering effect on various properties. Characterization: Microstructural features its measuring technique, mechanical, electrical, thermal, magnetic, optical etc.

References

1. A textbook of material science and engineering, R.K Rajput, S.K Kataria & sons, 2013 edition.
2. Material Science and Engineering, WF Smith, J Hasemi, Ravi Prakash, McGraw hill education, 5th edition 2017
3. A textbook of Nanoscience and Nanotechnology, Pradeep, McGraw Hill(2012)
4. Introduction to Nanoscience and Nanotechnology, K.K Chattopadhyay, A.N. Banerjee, PHI(2009)
5. Ceramic Processing and sintering, M.N Rahman, Marcel Dekkar, 1995

PH 655: RADIOLOGICAL PHYSICS [3-0-0-6]

Atoms, Radiation, and Radioactivity, Interactions of Radiation and Tissue, Radiation Measurements and Units: International System of Units, The Concept of Dose, ICRP Weighting factors, Units, Radiation detectors.

Protection X-Ray imaging: X-Ray tubes and spectra, basic concept in Radiography, Digital imaging and Radiographic image receptors, Image quality in radiography, Mammography image quality dose. Fluoroscopy: Fluoroscopy system, radiation

ADDITION OF NEW COURSES
Dept. of Physics, NIT Manipur

dose and safety in interventional radiology, Computed tomography: CT system, CT image quality and protocols, radiation dose in CT, Imaging Gently: CT imaging and radiation protection of pediatric patients.

Nuclear medicine: Radioactive decay, fundamentals of nuclear medicine/gamma cameras, SPECT/SPECT-CT, quality control, PET/PET-CT/image quality, radiopharmacy and dosimetry.

Magnetic Resonance: Basic principles of nuclear magnetic resonance, MRI: pulse sequences, MRI: image formation, MRI: Instrumentation, MRI: Image characteristics, MRI: Image artifacts, MRI: special acquisition methods, MRI: tissue properties, contrast agents and reactions, MRI: quality/bioeffects/safety, MRI: Siting and environmental protection.

Ultrasound: Concepts and transducers, basic ultrasound imaging and display, interaction of ultrasound tissue and Doppler, image quality-artifacts-doppler-safety.

References:

1. Zhihua Qi and Robert D. Wissman Radiologic Physics: The Essentials (Essentials Series)
2. Singh Hariqbal, Textbook Of Radiology Physics
3. Kuppusamy Thayalan, Basic Radiological Physics
4. Thayalan K, The Physics Of Radiology And Imaging
5. Bernard Shleien, Handbook of Health Physics and Radiological Health

PH 657: PHYSICS OF POLYMERS [3-0-0-6]

Unit -1: Introduction: History of polymer science, polymer microstructure and architecture, polymer conformations and fractal nature, basic states of polymeric systems, polydispersity and molecular weight distribution; Polymer chain models: ideal chain models (freely jointed, freely rotating, Gaussian chain), real chains; Size characterization: radius of gyration and size measurement by scattering.

Unit 2: Solutions and Blends: Thermodynamics of binary mixing – Flory-Huggins mean-field theory, Phase diagram; Block-copolymers: Types, chemistry and notation; Self-organized structures and Phase diagram, Theory of block-copolymer structure formation – a brief introduction to Strong-segregation theory and Weak-segregation theory.

Unit 3: Nano-technology with soft matter: polymeric materials, polymer nanocomposites and applications, block-copolymers and its application in modern technology; Biological Soft Matter (Lipid membrane, DNA, Proteins, etc.)

References:

1. Soft Matter Physics, M. Doi, Oxford University Press (2013)
2. Polymer Physics, M. Rubinstein and R. H. Colby, Oxford University Press (2003)
3. The Physics of Block Copolymers, I. Hamley, Oxford University Press (1998)
4. Introduction to Soft Matter: Synthetic and Biological Self-Assembling Materials, I. Hamley, Wiley (2007)
5. Giant Molecules – Here, There, and Everywhere, A. Y. Grosberg and A. Y. Khokhlov, World Scientific

PH 659: Ceramic Processing [3-0-0-6]

Unit 1. Synthesis of powders: mechanical methods, chemical methods, sol-gel processing, powder consolidation, forming of ceramics, packing of powders, importance of additives, pressing methods, casting methods, plastic-forming methods.

Unit 2. Sintering of ceramics: Diffusion in solids, defects and defect chemistry, sintering diagrams, sintering with additives/sintering aids, sintering with applied pressure, sintering in controlled medium, sintering stress, derivation of sintering equations

Unit.3. Microstructural growth: Growth in microstructure, grain growth, normal grain growth/ abnormal grain growth in dense solids, grain growth in porous solids, pore evolution during sintering, interaction between grain growth and densification, characterization by XRD, SEM, FTIR, etc.

References:

1. Ceramic Processing and Sintering, M. N. Rahaman, Marcel Dekker, Inc. New York, 1995
2. Introduction to Engineering Materials, Behaviour, properties, selection, G. T. Murray
3. Chemical Processing of ceramics, B. I. Lee, E. J. A. Pope

Sl. No.

Date : 10/02/2022



राष्ट्रीय प्रौद्योगिकी संस्थान मणिपुर



NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR

Imphal, Manipur, India

Migration Certificate

This is to certify that Mr./Ms. _____ S/o/D/o. _____ was a student of Doctor of Philosophy bearing Enrollment Number _____ in the Department of _____ during 20__-20__.

The Institute has no objection to his/her undergoing further studies in any Institute / University.

Assistant Registrar (AA)

NIT Manipur

Seal

Dean (AA)

NIT Manipur

Enrollment/Registration No. : {Registration Number}

National Institute of Technology Manipur

Degree Certificate



This is to certify that
{Student Name}
was awarded the degree
of
{Course Name} → MASTER OF TECHNOLOGY
in
{Stream Name} → ELECTRICAL ENGINEERING
(POWER AND CONTROL)
for the Examination held in {Year}.

Dated : {Date}



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National Institute of Technology Manipur

Degree Certificate



This is to certify that
{Student Name}
was awarded the degree
of
{Course Name}
in
{Stream Name}
for the Examination held in {Year}.

Dated : {Date}



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M.Sc



National Institute of Technology Manipur

This is to certify that

{Student Name}

CONFERRED

has been ~~admitted to~~ the degree

of

{Course Name} → DOCTOR OF PHILOSOPHY

in

{Stream} ELECTRICAL ENGINEERING

for the thesis on

{Thesis} {Day}-

and found to be qualified for the same in **{Month}**-**{Year}**



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