**Minutes of the Third Academic Council (AC) meeting of Shiv Nadar (Institution of Eminence Deemed to be University), held on Thursday, 9 February 2023**

The Third Meeting of the Academic Council (AC) of **'Shiv Nadar IoE',** was held online on **Thursday, 9 February 2023**. The following members were present in the meeting:

| S. No. | Name | Designation |
|---|---|---|
| 1. | Dr. Ananya Mukherjee | Vice-Chancellor, Chairperson |
| 2. | Dr. Sandeep Sen | Dean, School of Engineering, SoE |
| 3. | Dr. Bibek Banerjee | Dean, School of Management & Entrepreneurship (SoME) |
| 4. | Dr. Rajat Kathuria | Dean, School of Humanities and Social Sciences, SoHSS |
| 5. | Dr. Sanjeev Galande | Dean, School of Natural Sciences, SoNS, Head, Department of Life Sciences |
| 6. | Dr. Suneet Tuli | Dean, Research & Partnerships, Professor, Department of Electrical Engineering, SoE |
| 7. | Dr. Dinkar Prasad | Professor & Head, Department of Electrical Engineering, SoE |
| 8. | Dr. Sanjeev Yadav | Associate Professor & Head, Department of Chemical Engineering, SoE |
| 9. | Dr. Dolly Sharma | Associate Professor & Head, Department of Computer Science and Engineering, SoE |
| 10. | Dr. Harpreet Singh Arora | Associate Professor & Head, Department of Mechanical Engineering, SoE |
| 11. | Dr. Ghanshyam Pal | Associate Professor & Head, Department of Civil Engineering, SoE |
| 12. | Dr. Sudeepto Bhattacharya | Professor and Head, Department of Mathematics, SoNS |
| 13. | Dr. Bimlesh Lochab | Professor & Head, Department of Chemistry, SoNS |
| 14. | Dr. Susanta Sinha Roy | Professor & Head, Department of Physics, SoNS |
| 15. | Dr. Anubhuti Maurya | Associate Professor & Head, Department of History & Archaeology, SoHSS |
| 16. | Dr. Yasmeen Arif | Professor & Head, Department of Sociology, SoHSS |
| 17. | Dr. Vikram Kapur | Professor & Head, Department of English, SoHSS |
| 18. | Dr. Ram Ranjan | Professor & Head, Department of Economics, SoHSS |
| 19. | Dr. Siddharth Mallavarapu | Professor & Head, Department of IRGS, SoHSS |
| 20. | Prof. Atul Bhalla | Professor & Head, Department of Art, Media and Performance, SoHSS |
| 21. | Dr. Rajeev Kumar Singh | Associate Dean, Academics & Associate Professor, Computer Science & Engineering, SoE |
| 22. | Mr. Sudhir Naudiyal | Registrar, Non-Member |

Special Invitees to present the specific agenda item;

| S. No. | Name | Designation |
|---|---|---|
| 1. | Dr. Prakash Kumar | Associate Professor, Department of Design, SoHSS |
| 2. | Dr. Venkatnarayan Hariharan | Associate Professor, Department of Electrical Engineering, SoE |
| 3. | Dr. Naveen Babu | Associate Professor, Department of Electrical Engineering, SoE |
| 4. | Mr. Ziaur Rehman | Deputy Controller of Examinations |
| 5. | Dr. Aadya Kaktikar | Associate Professor, Department of Art, Media and Performance, SoHSS |
| 6. | Dr. Shabana Mitra | Assistant Professor, Department of Economics, SoHSS |
| 7. | Dr. Ajit Kumar | Assistant Professor, Department of Mathematics, SoNS |

**Item No. 1**    **Confirmation of the minutes of the Second meeting of the Academic Council of Shiv Nadar (Institution of Eminence Deemed to be University), held on 12 December 2022**

The minutes of the Second meeting of the Academic Council held on 12 December 2022, circulated to the members on 14 January 2023, were confirmed and attached as **Annexure-1.**

**Item No. 2**    **To discuss and approve the following items pertaining to various Departments of School of Humanities and Social Sciences (SHSS)**

**A. DEPARTMENT OF INTERNATIONAL RELATIONS AND GOVERNANCE STUDIES (IRGS)**

**I.  Introduction of 'Doctoral Thesis Seminar course' in IRGS curriculum**

Dr. Siddharth Mallavarapu, Head, Department of IRGS briefed the AC regarding the introduction of the 'Doctor Thesis Seminar Course' in IRGS Ph.D. Curriculum. The same was approved by the AC.  The proposal as approved is annexed at **Annexure-2**.

**B. DEPARTMENT OF DESIGN**

**II.  Introduction of 'Des535-Sequential Narrative' course in the M. Design Program**

Dr. Prakash Kumar, Associate Professor, Department of Design, briefed the AC regarding the introduction of 'Des535-Sequential Narrative' course in the M. Design Program. After a brief discussion the AC approved the same.

**Item No. 3**    **To discuss and approve the following items pertaining to various Departments of the School of Engineering (SoE)**

**A. DEPARTMENT OF ELECTRICAL ENGINEERING**

**I.   Proposal to start M. Tech. program in "VLSI Design & Embedded Systems" in collaboration with STMicroelectronics**

Dr. Venkatnarayan Hariharan, Associate Professor, Department of Electrical Engineering presented before the AC the proposed new M. Tech. program titled **"VLSI Design and Embedded Systems"**, in collaboration with STMicroelectronics, w.e.f. Monsoon-2023. The same was approved in the School's Board of Studies (BoS) meeting held on 13 January 2023.

He further briefed that STMicroelectronics would conduct two courses in Semester-III at its campus in Greater Noida, i.e. **EED614 VLSI Design and Test Flow and EED612 Mixed Signal Design**, and students would do their internship also. The Chairperson suggested to consider the logistic challenges such as travel etc. that may be faced by the students during their visits to the said company. The smooth learning outcome has to be ensured in this regard.

After a brief discussion, the AC approved the introduction of **"VLSI Design & Embedded Systems"** in collaboration with STMicroelectronics. The proposal as presented before the AC is attached at **Annexure-3**.

## II. Renaming of Courses

Dr. Naveen Babu, Associate Professor, Department of Electrical Engineering, briefed before the AC the renaming and merging of credits of the following courses in the UG courses being offered in the Department of Electrical Engineering. These were approved in the School's Board of Studies (BoS) meeting held on 13 January 2023.

  i. Merging of EED205 (Communication Engineering) and EED350 (Digital Communication) into a single course of L-T-P loading (3-1-1) and with total credits =5. The suggested name for the new course is Analog and Digital Communication.
 ii. Change EED368 (Information Theory and Coding) course from elective slot to core slot.
iii. Change in credit structure of EED363 - Applied Machine Learning from 3-0-0 to 3-1-0.
 iv. Renaming of the course EED361 - "Design of analog CMOS circuits" to "Design of CMOS Analog Circuits".
  v. Renaming of EED401 - VLSI Design and Technology to VLSI Design.
 vi. Change in the sequence of computer science course in the new curricula of the Electrical and Computer Engineering Program.
vii. Change of credit for the course ECE102 – Semiconductor Devices Course

Dr. Naveen Babu, further informed that the existing courses would be continued to be offered to the backlog students till they all pass out the program. The AC took note of the changes and approved the same.

## B. DEPARTMENT OF MECHANICAL ENGINEERING

Dr. Harpreet Singh Arora, HoD, Department of Mechanical Engineering, briefed before the AC the introduction of a new PG elective Course on "**Computational Materials Science**, and a new UG specialization track on "**Robotics and Automation**".

He also informed the discontinuation of the following two UG Specialization Tracks in Mechanical Engineering;
  • Manufacturing and Surface Engineering
  • Production Technology and Industrial Engineering

The above mentioned proposals were approved in the School's BoS meeting held on 13 January 2023. The AC took note of the changes and approved the same. The details as presented and approved by the AC are annexed at **Annexure-4 & 5**.

## C. DEPARTMENT OF CHEMICAL ENGINEERING

Dr. Sanjeev Yadav, HoD, Department of Chemical Engineering, presented before the AC regarding the introduction of some new specializations in Biochemical Engineering and the introduction of a new course on **"Introduction to chemical and biochemical engineering."**

He also informed the AC regarding removing the **Industrial and Engineering Chemistry course** to accommodate the **Biochemistry** course and some minor changes in Chemical Engineering UG curriculum.

The above-mentioned proposals were approved in the School's BoS meeting held on 13 January 2023. The AC took note of the changes and approved the same. The details as presented and approved by the AC are annexed at **Annexure-6 & 7**.

## D. DEPARTMENT OF CIVIL ENGINEERING

Dr. Ghanshyam Pal, HoD, Department of Civil Engineering presented before the AC the introduction of an Interdisciplinary minor in **"Sustainable Energy Technologies"** at the School of Engineering, developed jointly by the Department of Chemical Engineering, Civil Engineering, and Mechanical Engineering. He briefed that all the countries in the world are focusing on developing sustainable and environment-friendly sources of energy such as solar, fuel cell, wind, hydro, geothermal, and bio-based energy. This interdisciplinary minor is framed keeping in mind the fundamental responsibility of the University to provide training opportunities to the students in various aspects of "Sustainable energy technologies" including sources of renewable (sustainable) energy, energy economics, policies, and energy management.

The members have found it a significant minor and discussed the scope of extending the same to other students across the different departments of the schools. Dr. Ghanshyam informed the members that there are specific courses that are prerequisites to take the minor.

The AC, after a detailed discussion, approved the minor in **"Sustainable Energy Technologies"**. Please see **Annexure-8 for details, as presented to AC and approved.**

He further briefed the AC about the introduction of three new UG Courses vis-à-vis **Energy Economics and Policies, Waste to Energy, Energy and Environment**, and the addition of a single **3 credit course** -'**Research Methodology'**, by merging Research Methodology-I and Research Methodology-II having 2 credits each, in the Department of Civil Engineering. The AC after discussion approved the above. The details as approved are annexed at **Annexure-9 & 10.**

## E. DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The Chairperson informed the members that this specific item was added after the circulation of the agenda items. Hence, this was allowed to be tabled. Dr. Dolly Sharma, Head, Department of Computer Science and Engineering, presented the following proposals which were approved by the BOS meeting of the SoE, held on 13 January 2023.

I. **Introduction of following new programs**

  i. **Dual (B.Tech.+M.Tech.)– Computer Science and Engineering**

  After a detailed discussion, Dr. Sandeep Sen, Dean, SoE requested to approve this program to be launched from Monsoon 2023, and it may be applicable for both fresh and lateral shift students of the existing B.Tech. program. The chairperson suggested that since B. Tech. and M. Tech. are existing programs, hence there is no financial implication and fresh approval of the Board of Management is also not required.

  The Registrar appraised the AC that while approving the integrated B.Sc.-M.Sc.-Ph.D. (Chemistry) in the 30th Academic Council meeting held on 25 January 2020, it was suggested to follow the same model for other streams too. The proposal and the Viability Assessment report as presented before the AC are attached at **Annexure-11.**

  ii. **Dual (M.Tech.+ Ph.D.) - Computer Science and Engineering**

  The Proposal and the Viability Assessment report as presented before the AC are attached at **Annexure-12.**

  iii. **M. Tech. – Data Science and Artificial Intelligence**

  Dr. Susanta Roy requested to add "Physics" also in the eligibility criteria. Dr. Bibek Banerjee suggested to include B.Sc. (Maths) and B.Sc. (Statistics) in the eligibility criteria. Dr. Dolly and Dr. Rajeev have taken these suggestions into consideration and accordingly would revise the eligibility criteria. Dr. Bibek further suggested to explore some synergy with the collaboration of SoME since SoME is also running a similar program in MBA Analytics.

  The Chairperson suggested to explore a joint program having the collaboration of both the schools SoME and SoE. She pointed to present this program to BoM for its reporting. The Registrar apprised the AC that the Executive Council in the past raised the issue of the minimum no. of seats in the new programs. Dr. Sandeep Sen assured the AC that admissions would be more than 15 considering the program specifications. The Proposal and the Viability Assessment report as presented before the AC is attached **Annexure-13.**

II. **Changes in the UG Curriculum for 2023-27 batch and 2022-26 batch (2nd year onwards)**

  i. The following courses shall be relocated in order to offer complete prerequisites before offering electives:
  - Computer Networks is pulled from 6th semester to 5th semester
  - Introduction to Database systems is pulled to 4th semester from 5th semester

  ii. The following courses are being removed from the program:
  - Signals and Systems (4 credits)
  - Seminar (2 credits)
  - Software Design Lab (2 credits)

**iii.** Two new courses have been added. These two courses replace the three courses which were removed but total credits remain the same.
- Digital Image Processing (4 credits) to replace Signals and Systems (4 credits)
  The details as presented and approved by the AC are annexed at **Annexure-14**.
- Optimization (4 credits) to replace Seminar (2 credits) and Software Design Lab (2 credits)
  The details as presented and approved by the AC are annexed at **Annexure-15.**

iv. Due to the above restructuring, the students are now required to do the electives as follows: Elective 1 in 5th semester, Electives 2 & 3 in 6th semester and electives 4 & 5 in the 7th semester.

III. **Changes in the PG Curriculum for 2023 batch onwards**
   i. All electives for PG courses will be offered for 4 credits

   ii. The M. Tech. Computer Science and Engineering degree will be offered after completion of a minimum of 52 credits. Out of which, the student will have to complete 32 credits of core courses and Thesis credits and 20 credits worth of electives. The details as presented and approved by the AC are annexed at **Annexure-16.**

   iii. New courses added:
   - Applied Research Methods (2-0-2) to replace Research Methodology (4-0-0)
   - Advanced Algorithms (3-1-0) to replace Advanced Data Structures and Algorithms (3-1-0)

IV. CSD494 grading is converted to S/U for all B. Tech. CS&E batches since a vast majority of our students go for Industry internships. The details as presented and approved by the AC are annexed at **Annexure-17.**

The AC noted all the proposals presented by Dr. Dolly Sharma and approved the same.

**Item No. 4**    **To discuss and approve the recommendations received from the Office of Dean Research and Partnerships regarding the extension of Ph.D. registration of Research Scholars beyond five years for Spring 2023 session**

The Registrar presented this item before the AC since Dr. Karthik Krishnan, Associate Dean, Research, was not present. He requested to approve the extension of Ph.D. registration of 25 scholars beyond five years for Spring 2023 session as per the practice followed in this regard. Prof. Sandeep Sen suggested to extend the financial support to the Ph.D. scholars beyond the existing duration of 5 years. Dr. Ghanshyam Pal suggested to consider the time gap between two semesters where scholars are not getting any stipend. The Chairperson directed the Registrar to record these two points in the minutes for future reference. The details of the scholars for whom the extension was granted by the AC are attached at **Annexure-18.**

**Item No. 5**     **To discuss the agenda items received from the office of Dean Academics**

Dr. Rajeev Kumar Singh, Associate Dean, Office of Academics, briefed the following items before the AC.

I.  **Examination Admit Card**– Dr. Rajeev explained that they are creating a provision in SAMS with the help of IT team for the students to download their admit card from self-service based on the attendance criteria of 75%. He further suggested that this may be implemented in Spring 2023.

II.  **Discussion on Liberal Arts Program**– Dr. Aadya Kaktikar presented the same before the AC. She further briefed the AC about the salient features of the BA (H) Liberal Arts four years program having 150 credits curriculum framework. Its advantages, job opportunities, financial viability, and benchmarking were also presented. Some members suggested to change in the nomenclature of the course, which were anticipated.

    She explained that since this is a new multidisciplinary UG program, thus it would need discussion and approval by the Board of Management with detailed viability of the project. The details as presented and approved by the AC are annexed at **Annexure-19.**

III.  **Feedback from Students, Parents, Employers, and Alumni-** Dr. Rajeev explained to the AC that the feedback would be collected in a more structured way so that the input from all the stakeholders may be collected for the purpose of IQAC. More rigorous steps would be taken to collect feedback from the stakeholders.

IV.  **Co-Curriculum Transcript-** Dr. Ajit Kumar briefed this item before the AC. He explained that every student would be able to download the Co-Curriculum Transcripts from the APP to be developed. The skills and club details of students would be mentioned on this transcript. He explained the objectives of sharing the skill-oriented extracurricular aspects of the students to widen their scope in the job market/potential employers. He further informed the AC that the testing of this APP would be done within the next 2 months and launched effective from Monsoon 2023. The details as presented and approved by the AC are annexed at **Annexure-20**.

V.  **Curriculum Review–** Dr. Shabana Mitra briefed the AC about the proposed curriculum review. Dr. Rajeev informed that the feedback of the faculty members would be collected on curriculum review from Monsoon 2023 before rolling out the same. The details as presented and approved by the AC are annexed at **Annexure-21.**

VI.  **Adoption of Academic Bank of Credit (ABC) -** Dr. Rajeev explained to the AC that Shiv Nadar IoE had joined ABC. He said that this will now facilitate any outsider student, who joins the institution, to enroll and complete any available course from Shiv Nadar IoE. He also proposed that a fee of Rs. 10000/- per credit would be charged from the students enrolling for the course offered by the Shiv Nadar IoE.

    The AC took note of the same and approved.

**Item No. 6**      **To discuss the 'Grade Analysis' of the Shiv Nadar IoE results for Monsoon 2022**

Mr. Ziaur Rehman, Deputy Controller of Examinations, presented the Grade Analysis reports for Monsoon 2022 before the AC. The members had a detailed discussion on the Grade Analysis report, and AC noted the same.

The Grade Analysis report attached to **Annexure-22** as presented before the AC, was taken on record.

**Any other item with the permission of the Chair**

**To discuss and approve a tentative list of Graduands (UG, PG and Ph.D.) who are to be awarded Degrees in the 9th Convocation of the University to be held on 26 May 2023**

The Registrar presented a tentative list of 610 degree recipients (UG, PG and Ph.D.) during the 9th Convocation to be held on 26 May 2023 before the AC for its approval.

The summary of the tentative list of Graduands is mentioned below:

| Schools | UG | PG | Integrated | Ph.D. | Total |
|---------|-----|-----|------------|-------|-------|
| SoE | 253 | 4 | 1 | 8 | 266 |
| SoHSS | 73 | 51 | - | 1 | 125 |
| SoME | 47 | 57 | - | 3 | 107 |
| SoNS | 80 | 3 | 4 | 25 | 112 |
| **Total** | **453** | **115** | **5** | **37** | **610** |

The Registrar further informed that the actual number of students graduating will vary based on the Spring 2023 results.

The AC noted the same and approved the list of 610 Graduands. The list is attached at **Annexure-23**.

Since there was no item to be discussed, the meeting ended with a vote of thanks to the Chair.

Dr. Ananya Mukherjee
Vice Chancellor- Chairperson