

# School of Engineering & Physical Sciences (SEPS)

## 1. ABOUT THE SCHOOL

The School of Engineering and Physical Sciences (SEPS) has been a school of NSU since its inception. The growth of SEPS parallels NSU's rise to the top. SEPS, the second-largest and fastest-growing school at NSU, provides a knowledge and skill-based learning environment to its students in the fields of engineering, architecture, and physical sciences. The school originally started its journey in 1993 as the "School of Engineering and Applied Sciences (SEAS)". Later, the SEAS was renamed the "School of Engineering and Physical Sciences" (SEPS) in 2014. At present, SEPS is the home of over 7,500 undergraduate and graduate students in its eight academic programs offered by four academic departments: the Department of Architecture (DoA), the Department of Civil and Environmental Engineering (CEE), the Department of Electrical and Computer Engineering (ECE), and the Department of Mathematics and Physics (DMP). All the engineering programs under SEPS are accredited by the Board of Accreditation for Engineering and Technical Education (BAETE), and the Architecture program is accredited by the Accreditation Standard of the Institute of Architects (ASIAB). NSU has been ranked the **#1 university in Bangladesh for ENGINEERING** by the prestigious **Times Higher Education (THE) World University Rankings 2023 (by Subject)** with a Global Rank of **301-400**. Furthermore, according to the Times Higher Education World University Rankings 2023, our **Civil Engineering program is ranked #1 in Bangladesh** (Global rank 301-400), the **Electrical and Electronic Engineering program is ranked #1 in Bangladesh** (Global rank 301-400), and the **Computer Science program is ranked #2 in Bangladesh** (Global rank 501-600, trailing the University of Dhaka).

## 2. VISION

The School of Engineering & Physical Sciences (SEPS) intends to be a center of excellence in innovation and technological entrepreneurship by building a knowledge and skill-based learning environment for students in the field of engineering, architecture, and physical sciences with adequate technical competency, social responsibility, communication skill, and ethical standard.

## 3. MISSION

Our missions are

M1. To maintain international standards in terms of program curricula, instruction style, laboratory and research facilities, faculty recruitment, and student intake.

M2. To provide quality teaching and learning in engineering education that emphasizes innovation and creativity more than classroom teaching, along with better communication skills.

M3. To enhance quality research emphasizing on the greater engagement of practical-oriented study, industry relations, collaboration with reputed universities and research institutes worldwide, etc.

M4. To produce technically competent and socially responsible engineering graduates with the highest ethical standards and human values so that they can serve society holistically.

M5. To gain national and global recognition, it will seek various accreditation and certification as required.

#### 4. DEPARTMENTS AND PROGRAMS

A summary of the programs currently offered and those planned for future offerings are shown in the following table.

Department	Currently Offered Programs	
	Program	Credit Hours / Duration
Department of Electrical and Computer Engineering (ECE)	<b><i>Undergraduate Program:</i></b>  Bachelor of Science in Computer Science and Engineering (BS CSE)  Bachelor of Science in Electrical and Electronic Engineering (BS EEE)  Bachelor of Science in Electronics and Telecommunication Engineering (BS ETE)	130 Credits / 4 Years
	<b><i>Graduate Program:</i></b>	33 Credits/

	<p>Master of Science in Computer Science and Engineering (MS CSE)</p> <p>Master of Science in Electrical and Electronic Engineering (MS EEE)</p> <p>Master of Science in Electronics and Telecommunication Eng. (MS ETE)</p>	2 Years
	<p><b>Minor:</b></p> <p>Minor in CSE</p> <p>Minor in ETE</p>	30 Credits
Department of Civil and Environmental Engineering (CEE)	<p><b><i>Undergraduate Program:</i></b></p> <p>Bachelor of Science in Civil and Environmental Engineering (BSCEE)</p>	149 Credits / 4 Years
	<p><b><i>Graduate Program:</i></b></p> <p>None.</p>	-
Department of Architecture (DA)	<p><b><i>Undergraduate Program:</i></b></p> <p>Bachelor of Architecture (B. Arch)</p>	176 Credits / 5 Years
	<p><b><i>Graduate Program:</i></b></p> <p>None</p>	-
Department of Mathematics and Physics (DMP)	<p><b><i>Undergraduate Program:</i></b></p> <p>None</p>	
	<p><b>Major:</b></p>	-

	None	
	<b>Minor:</b>	
	Minor in Mathematics Minor in Physics	21 Credits 15 Credits

## 5. STUDENT GROWTH

Over the past five years, the undergraduate student intake steadily grew from 1100 to well over 2000, while the graduate student intake stayed stable.

## 6. LABORATORY FACILITIES

The existing and planned (2019 - 2023) laboratory facilities of various departments of the school are shown in the following table.

Department	Existing Laboratories: Type, Numbers	Planned New Laboratories: Type, Numbers (by 2023)
ECE	Hardware = 9, Software = 14	Hardware = 8, Software = 4
CEE	Testing = 6, Drawing = 1	Testing Lab = 1, Design Lab = 1, High Performance Computing Lab = 1
DA	Design Studio = 14 Computer Lab = 1 Wood Workshop = 1 Building Material Lab = 1	Design Lab = 1, 3D Printing Lab = 1, Photography Lab = 1, Simulation Lab = 1
DMP	Physics Lab = 4	Physics Lab = 1
<b>Total number:</b>	<b>52</b>	<b>New = 20, Total = 71 by 2023</b>

## LEADERSHIP

### DEAN

**Prof. Dr. Md. Shazzad Hosain**

Ph.D. Wayne State University, USA  
South Academic Building, SAC 618  
Phone: +88 02 55668200, Ext: 1500  
Email: [dean.seps@northsouth.edu](mailto:dean.seps@northsouth.edu)

## **DEPARTMENT CHAIRS**

### **Architecture**

#### **Ar. Shahriar Iqbal Raj**

M. Sc in Digital Architecture, Newcastle University, UK.  
South Academic Building, SAC 909  
Phone: +88 02 55668200 Ext: 1865  
Email: [shahriar.raj@northsouth.edu](mailto:shahriar.raj@northsouth.edu)

### **Civil and Environmental Engineering**

#### **Dr. SM Ashfaul Hoq**

Ph.D. in Civil Engineering, University of Wyoming, WY, USA  
South Academic Building, SAC 731  
Phone: +88 02 55668200 Ext –1980  
Email: [ashfaul.hoq@northsouth.edu](mailto:ashfaul.hoq@northsouth.edu)

### **Electrical and Computer Engineering**

#### **Prof. Dr. Mohammad Abdul Matin**

Ph.D. Newcastle University, UK  
South Academic Building, SAC 941  
Phone: +88 02 55668200 Ext – 1501  
Email: [mohammad.matin@northsouth.edu](mailto:mohammad.matin@northsouth.edu)

### **Mathematics and Physics**

#### **Prof. Dr. Md. Mamun Molla**

Ph.D., University of Glasgow, UK  
South Academic Building, SAC 1039  
Phone: +88 02 55668200 Ext – 1503  
Email: [mamun.molla@northsouth.edu](mailto:mamun.molla@northsouth.edu)

## ACADEMICS

### DEPARTMENTS

Architecture

Civil and Environment Engineering

Electrical and Computer Engineering

Mathematics and Physics

### PROGRAMS

School of Engineering and Physical Sciences at NSU offers the following undergraduate and graduate programs under its four departments.

#### ***Undergraduate***

BS in Architecture

[BS in Civil and Environmental Engineering](#)

BS in Computer Science and Engineering

BS in Electrical and Electronic Engineering

BS in Electronics and Telecommunication Engineering

#### ***Graduate***

MS in Computer Science and Engineering

MS in Electrical and Electronic Engineering

MS in Electronics and Telecommunication Engineering

## OUR PEOPLE

### [School Administration](#)

#### **Prof. Dr. Md. Shazzad Hosain**

Dean and Professor, School of Engineering and Physical Sciences

Phone: +88 02 55668200, Ext: 1500

Email: [dean.seps@northsouth.edu](mailto:dean.seps@northsouth.edu)

Office: SAC 618

**Dr. SM Ashfaul Hoq**

Chair, Department of Civil and Environmental Engineering

Phone: +88 02 55668200, Ext: 1980

Email: [ashfaul.hoq@northsouth.edu](mailto:ashfaul.hoq@northsouth.edu)

Office: SAC 731

**Prof. Dr. Mohammad Abdul Matin**

Chair, Department of Electrical and Computer Engineering

Phone: +88 02 55668200, Ext: 1501

Email: [mohammad.matin@northsouth.edu](mailto:mohammad.matin@northsouth.edu)

Office: SAC 941

**Ar. Shahriar Iqbal Raj**

Chair, Department of Architecture

Phone: +88 02 55668200, Ext: 1865

Email: [shahriar.raj@northsouth.edu](mailto:shahriar.raj@northsouth.edu)

Office: SAC 909

**Prof. Dr. Md. Mamun Molla**

Chair, Department of Mathematics and Physics

Phone: +88 02 55668200 Ext – 1503

Email: [mamun.molla@northsouth.edu](mailto:mamun.molla@northsouth.edu)

Office: SAC 1039

**Coordinators****Prof. Dr. Nafisa Noor**

ECE Graduate Coordinator

Phone: +88 02 55668200 Ext – 6188

Email: [nafisa.noor@northsouth.edu](mailto:nafisa.noor@northsouth.edu)

Office: SAC 926

**Dr. Md. Monir Uddin**

SEPS Research Coordinator

Phone: +88 02 55668200 Ext – 6212

Email: [monir.uddin@northsouth.edu](mailto:monir.uddin@northsouth.edu)

Office: SAC1025

**Dr. Md. Maksud Alam**

Program Coordinator - EEE/ETE Program  
Email: [maksud.alam@northsouth.edu](mailto:maksud.alam@northsouth.edu)  
Office: SAC 912

**Dr. Mohammad Shifat-E-Rabbi**

Undergraduate Coordinator - CSE Program  
Phone: +88 02 55668200 Ext – 6372  
Email: [rabbi.mohammad@northsouth.edu](mailto:rabbi.mohammad@northsouth.edu)  
Office: SAC 1146

**Ms. Syeda Sarita Hassan**

Laboratory Coordinator - ECE  
Phone: +88 02 55668200 Ext – 6378  
Email: [syeda.hassan@northsouth.edu](mailto:syeda.hassan@northsouth.edu)  
Office: SAC 1189

**Faculty by Department**

Architecture

Civil and Environment Engineering

Electrical and Computer Engineering

Mathematics and Physics

**Staff**

**Ms. Nurjahan Begum Nupur**

Senior Officer, Office of the Dean, SEPS  
Phone: +88 02 55668200 Ext – 1536  
Email: [nurjahan.begum@northsouth.edu](mailto:nurjahan.begum@northsouth.edu)  
Office: SAC 617

**Saidur Rahman**

Assistant Director - ECE  
Phone: +88 02 55668200 Ext – 1526  
Email: [saidur.rahman@northsouth.edu](mailto:saidur.rahman@northsouth.edu)  
Office: SAC942



**Atiqun Noor**

Faculty Assistant - ECE

Email: [atiqun.noor@northsouth.edu](mailto:atiqun.noor@northsouth.edu)

Ext. 1527

Office: SAC936

**Mr. Sazzad Chowdhury**

Department Secretary-ECE

Email: [sazzad.chowdhury01@northsouth.edu](mailto:sazzad.chowdhury01@northsouth.edu)

Ext.: 1530

Office: SAC943

**Sheikh Farid Akter**

Faculty Assistant - ECE

Email: [sheikh.akter@northsouth.edu](mailto:sheikh.akter@northsouth.edu)

Ext.: 6183

Office: SAC943

**Jannatul Ferdous Susmita**

Program Officer - DCEE

Email: [jannatul.susmita@northsouth.edu](mailto:jannatul.susmita@northsouth.edu)

Ext.: 1990

Office: SAC740

**Md. Zabedur Rahman**

Department Secretary - DCEE

Email: [rahman.zabedur@northsouth.edu](mailto:rahman.zabedur@northsouth.edu)

Ext.: 1991

Office: SAC740

**Farzana Haque**

Program Officer - Arch

Email: [farzana.haque@northsouth.edu](mailto:farzana.haque@northsouth.edu)

Ext.: 6454

**Anowar Hossain**

Faculty Assistant - Arch

Email: [anowar.hossain@northsouth.edu](mailto:anowar.hossain@northsouth.edu)

Ext.: 6245

**Nahid Sanjana**

Program Officer - DMP

E-mail: [nahid.sanjana@northsouth.edu](mailto:nahid.sanjana@northsouth.edu)

Ext. 1561

Office: SAC1038

**Farjana Abedin**

Department Secretary - DMP

Email: [farjana.abedin@northsouth.edu](mailto:farjana.abedin@northsouth.edu)

Ext: 1560

Office: SAC1037

**Advisory Board****Civil & Environmental Engineering Industry Advisory Panel:**

Engr. Md. Kabir Ahmed Bhuiyan, President of The Institute of Engineers Bangladesh (IEB) and Ex-Chief Engineer, PWD

Major General Abu Sayeed Md Masud, Project Coordinator of Padma Bridge, Special Works Division, Bangladesh Army and DG, SWO(West), Dhaka Cantt.

Engr. Shyama Prosad Adhikari, Chief Engineer, Local Government Engineering Department (LGED), Government of Bangladesh

ASM Mainuddin Monem, Deputy Managing Director, Abdul Monem Ltd.

Faizur Rahman Khan, Managing Director, Building Technology & Ideas Ltd (BTI)

Itemad Ud Daulah, Chairman, DIRD Group

M. Firoze, Head-Marketing & New Product Development, Bangladesh Steel Re-Rolling Mills Ltd. and BSRM Steels Ltd.

Hasin Jahan, Bangladesh Country Director, Practical Action

Abu Saleh Khan, Deputy Executive Director (Operation), Institute of Water Modeling

Mohiuddin Mahmud, Snowy Mountain Engineering Corp., SMEC Holdings Ltd.

Manwar Hossain, Managing Director, Steel & Building Materials Division, Anwar Group of Industries

Malik Fida A Khan, Director, CCSD, CEGIS

Mohammed Zulyaminayn, Senior Procurement Officer, Asian Development Bank (ADB),  
Bangladesh Resident Mission

Fahima Shahadat, Head of Infrastructure and Technical Services, Lafarge Holcim Bangladesh Ltd.

Md. Asif Rahman, Managing Director, CHB Building Technologies Ltd.

M. Zulkernine, Superintending Engineer, Development Circle, PWD

Md. Sohel Rahman, Superintending Engineer, Design Circle-1, PWD

Dr. Md. Abdullah Al Mamun, Superintending Engineer(RHD) and Director of BRRL

Md. Sabuj Uddin Khan, Superintending Engineer, Dhaka Circle, RHD

Engr. Saifullah Al Mamun, Superintendent of Police (SP), Bangladesh Police

### **ECE Industry Advisory Board (CSE Program):**

Mr. Anir Chowdhury, Policy Advisor, A2I, Prime Minister's Office

Mr. Mohammad Enamul Kabir, Director (Training & Development), Bangladesh Computer Council

Mr. Syed Almas Kabir, President, BASIS

Mr. Mamunur Rahman, Chairman & CEO, CTrends Software and Solutions Ltd.

Mr. Manjur Mahmud, COO, DataSoft Systems Bangladesh Limited

Mr. Md. Abul Kashem Khan, Senior Executive Vice President (CTO), DBBL

Mr. Ashraf Uddin, CTO, Enosis Solutions

Mr. Minhaz Uddin Anwar, Head of GP Accelerator, Grameenphone Limited

Mr. Shaikh Wahid, MD & CEO, LEADSOFT

Mr. Hussain Elius, CEO, Pathao

Mr. Ajmat Iqbal, CEO, Reve Systems

Mr. Anwarul Haque, Head of Advanced Solutions Group, Samsung R&D

Mr. Adnan Imtiaz Halim, CEO, SHEBA.XYZ

Mr. Forkan Bin Quasem, Managing Director, Spectrum Engineering Consortium Ltd.

Mr. Habibullah N Karim, Founder & CEO, Technohaven Company Ltd.

Mr. Nasir Uddin Ahmed, Senior Vice-President (R&D), TigerIT Bangladesh Ltd.

### **ECE Industry Advisory Board (EEE & ETE Programs):**

Mr. Md. Aminul Hassan, Commissioner (Spectrum), Bangladesh Telecommunication Regulatory Commission (BTRC)

Mr. Md. Monjurul Hoque, Chief Engineer, Dhaka Electric Supply Company Limited (DESCO)

Mr. Md. Rabiul Hasan, GM (ICT, Energy and Metering), DPDC

Mr. Rezwanul Kabeer, Director, Energypac Power Generation Ltd.

Mr. Kazi Mahboob Hassan, Senior Director, Head of Transformation, Grameenphone Ltd.

Mr. Md. Kamruzzaman, Regional Team Leader, Huawei Technology Co., Ltd.

Mr. Mohammad Hossain, Director General, Power Cell

Mr. Rezaul Islam, CEO, Power control & Management

Mr. Niaz Rahim, Group Director, Rahimafronz

Mr. Asif Naimur Rashid, Head of Info Tech / CIO, Robi Axiata Ltd.

Ms. Humaira Chowdhury, Co-Founder & MD, Frontier Technology Ltd.

Mr. Md. Mozammel Hossain, Managing Director, Summit Gazipur Power Ltd.

Mr. Md. Kabir Ahmed Bhuiyan, Ex-Officio Member, Former President, The Institution of Engineers, Bangladesh (IEB)

Mr. Enayetur Rahman, CEO, ULKASEMI Pvt Ltd.

Mr. Ariful Ambia, Operative Director, Walton Hi-Tech Industries Ltd.

## **Research and Collaboration**

### **1. RESEARCH MISSION**

#### ***SEPS research missions are-***

- The School of Engineering and Physical Sciences (SEPS) at North South University aims to be the center of excellence in innovation, technology, and entrepreneurship through

cutting-edge research in the fields of engineering, computing, architecture, and physical sciences.

- The school aims at working in line with Bangladesh's national research strategy and fostering the achievement of national, regional, and global sustainable development goals.
- In order to achieve these goals, the school will pursue interdisciplinary research to find out practical, economical, and sustainable solutions to society's critical and unique challenges.
- SEPS will also foster inter-institutional and international cooperative and collaborative research opportunities, spur local science and technology innovation through international research collaboration, and promote and disseminate research outcomes benefitting the national, regional, and global community.
- The school will continue working on enhancing capacity building in research by developing field-specific research groups and centers, as well as university-wide research institutes.

#### SEPS Research Strategic Plan 2024-2028

## **2. RESEARCH PRIORITIES:**

With a vision to foster the achievement of national, regional, and global sustainable development goals, North South University aspires-

- Cutting-edge research in engineering, computing, architecture, and physical sciences, especially in the fields of machine learning and data science, artificial intelligence (AI), robotics, communication and signal processing, cyber securities, advanced transportation, urban heritage & planning, biomedical physics, CFD, and computational and applied mathematics.
- Interdisciplinary research to address critical and unique challenges of society, such as Waste materials in concrete production, Biomedical Engineering, high-performance computing (HPC), etc.
- Extend collaboration among SEPS researchers beyond internal inter- and intra-departmental partnerships to include both local and international individuals as well as public and private agencies, such as MOUs with local and international universities and NGOs.
- Promote and disseminate research outcomes through peer-reviewed indexed journal publications and conference presentations for the benefit of the national, regional, and global community.

## **3. RESEARCH FACILITIES (INSTITUTES, CENTERS, GROUPS)**

### ***SEPS Current Research Facilities:***

- A High-Performance Computing (HPC) Facility.
- Center for Applied and Computational Science (CACS).
- Center for Infrastructure Research and Services (CIRS).
- 35 research groups.
- Apurba-NSU R&D Lab (Machine Learning & AI).
- Cyber-Physical System Lab.
- Design Inclusion and Access Lab.
- Mobile Application and Game Testing Lab.
- Optics Lab.
- Machine Intelligence Lab.
- Intelligent Robotics Lab.
- Building Research Lab.
- Architectural Model Making Workshop.
- Civil Engineering Design and Computing Lab.

***Planned Research Facilities:***

- Institute for Artificial Intelligence.
- Higher Performance Computing (HPC) Facility (2<sup>nd</sup> Unit).
- Urban Heritage and Planning Research Lab (Architecture)
- Energy and Systems Lab (Architecture)
- Fabrication lab (Architecture)

#### **4. SEPS RESEARCH STRATEGY FOR 2024-2028**

The core activities of SEPS research are performed by its four academic departments, namely, the Department of Electrical and Computer Engineering (ECE), the Department of Civil and Environmental Engineering (CEE), the Department of Mathematics and Physics (DMP), and the Department of Architecture. The core research areas are broadly categorized as Engineering, Technology, Architecture and Physical Sciences (Computer, Mathematics and Physics).

- **Enhance Quality Research:** Place a priority on interdisciplinary research that creates synergies among the expertise existing across the School while also building bridges to complementary research expertise elsewhere;
- **Promote Research Facilities:** Consolidate, integrate, and strategically expand the current research projects and develop new facilities for state-of-the-art research across the school. This strategy includes establishing new research labs and research centers; facilitate high-

performance computing, internal and external research grants hunting, providing journal subscription fees and conference travel grants, etc.

- **Recruit Research Active Staff:** Recruit the most talented research-active faculty and graduate research assistants to contribute diverse and complementary abilities to the work of our School. This strategy includes research-active faculty recruitment, full-time graduate research assistant appointment, engage research active scholars at various academic programs, hire visiting research scholars for short-term period, etc.
- **Extend Collaborations:** Enhance mechanisms and channels for academic and industrial communication and collaboration. This strategy might include course planning in curricula, industry-based research, internship, invitation of guest lectures, industry visits,
- **Incentivize Research:** Recognize and reward achievement across all aspects of the research work of the School and maximize opportunities as recognition of disciplinary and/or inter-disciplinary research contributions from faculty, staff, and students. This strategy includes monetary and non-monetary incentives, such as special increment(s), prize money, course load release, benefits in academic promotion and additional credit in faculty performance evaluation system, etc.

The core research areas are broadly categorized as Engineering, Technology, Architecture, and Physical Sciences (Computer, Mathematics, and Physics). The full-time faculty members of SEPS make up the most research-active pool of faculty at North South University.

## News & Events

### World University Rankings 2023

Times Higher Education (THE) World University Rankings 2023 (by Subject) has ranked NSU as the #1 university in Bangladesh for ENGINEERING. THE has further ranked our Civil Engineering program #1 in Bangladesh (Global rank 301-400), Electrical and Electronic Engineering program #1 in Bangladesh (Global rank 301-400), and Computer Science program #2 in Bangladesh (Global rank 501-600).

## **World University Rankings 2024**

NSU has been designated as the top university in Bangladesh (Ranking 801-1000 globally) by Times Higher Education (THE) World

University Rankings 2024.

**Our Engineering program and Computer Science program (Global rank 601-800) have again been recognized as #1 in Bangladesh**

**by THE.**

## **World University Rankings 2025**

Times Higher Education (THE) World University Rankings 2025 has ranked NSU as the #1 university in Bangladesh . THE has ranked our Engineering program #4 in Bangladesh (Global rank 601-800), and Computer Science program #5 in Bangladesh (Global rank 601-800).

## **QS World University Rankings 2022 & 2023**

Quacquarelli Symonds (QS) World University Rankings 2022 & 2023 (by Subject) has ranked NSU as the #1 Private University in Bangladesh for Computer Science and Information system (Global rank 601-650 for the year 2022 and 651-680 for the year 2023).



## QS World University Rankings 2024 & 2025

NSU has been designated as the top Private University in Bangladesh (Global rank 851-900 for the year 2024 and 901-950 for the year 2025) by Quacquarelli Symonds (QS) World University Rankings. **Our Computer Science and Information system program (Global rank 651-700) has again been recognized as #1 in Bangladesh by QS World University Ranking.**

### SEPS Contacts

**Ms. Nurjahan Begum Nupur**

Senior Officer, Office of the Dean, SEPS

Phone: +88 02 55668200 Ext – 1536

Email: [nurjahan.begum@northsouth.edu](mailto:nurjahan.begum@northsouth.edu)

Office: SAC 617