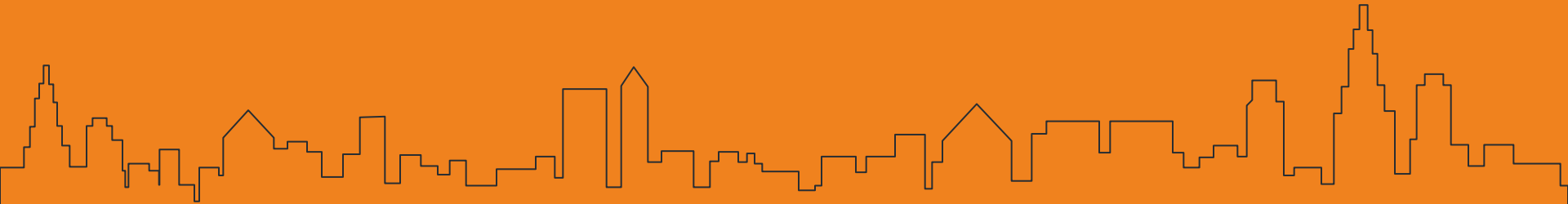




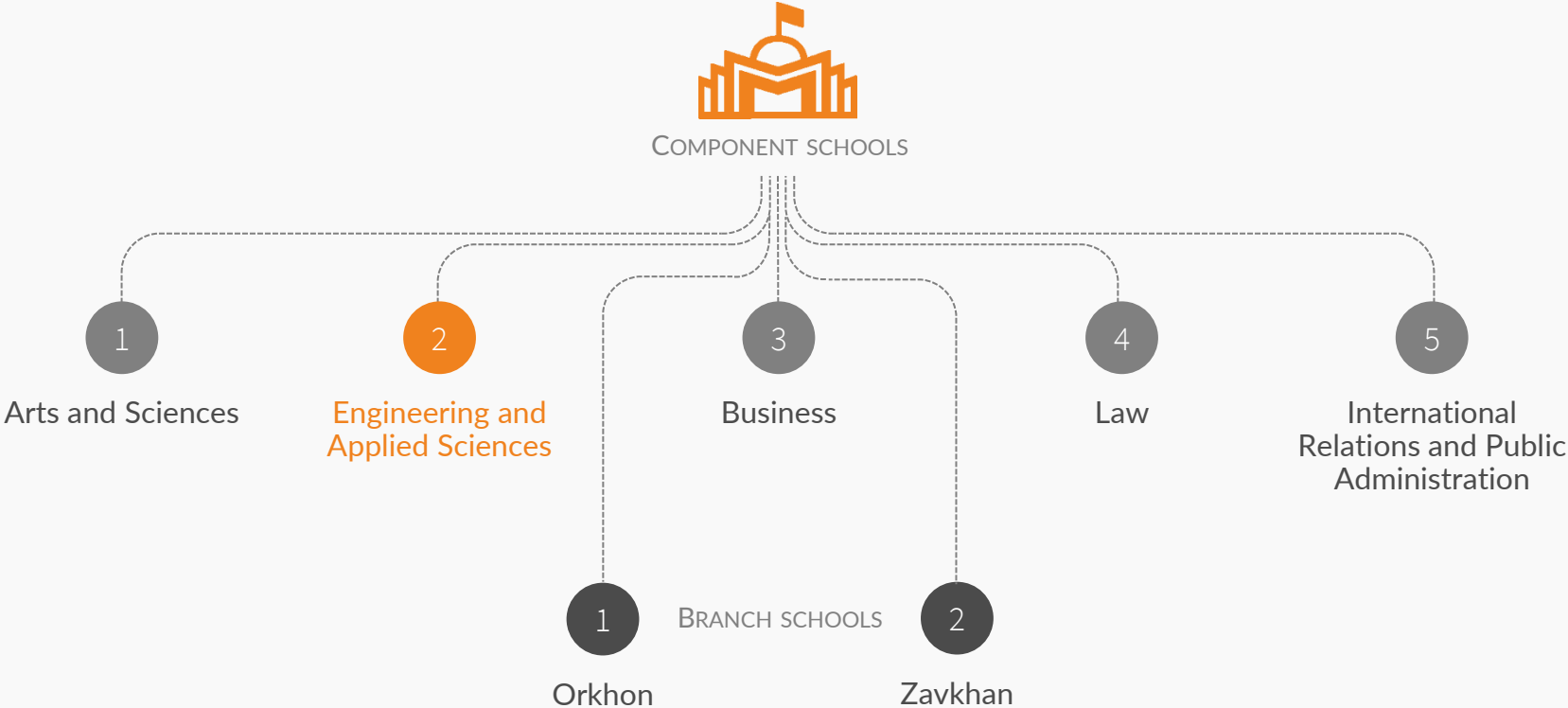
School of Engineering and Applied Sciences
Department of Electronics and Communication Engineering
National University of Mongolia

prof. Battulga DAVAASAMBUU
23-March-2022



NUM Schools

5 component schools, 2 branch schools, 8 facilities, 6 dormitories, 31 affiliated centers and institutes, 2 affiliated high schools



ХШУИС-ИЙН ТЭНХИМҮҮД

5 departments, 141 faculties, 3,153 students



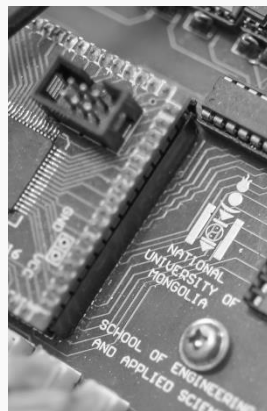
Chemical and Biological Engineering

18 professors, 17 curricula,
380 students



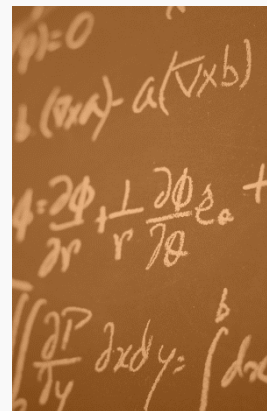
Environmental Sciences and Forest Engineering

13 professors, 8 curricula,
217 students



Electronics and Communication Engineering

15 professors, 9 curricula,
803 students



Applied Mathematics

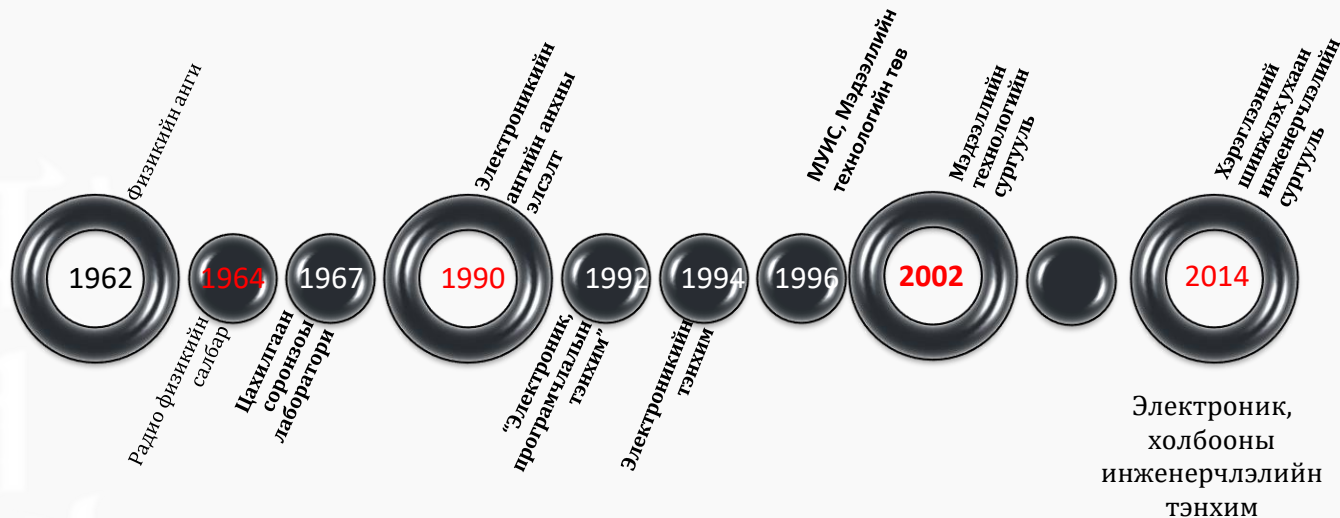
17 professors, 9 curricula,
354 students



Information and Computer Sciences

14 professors, 13 curricula,
582 students

Он цагийн хэлхээс

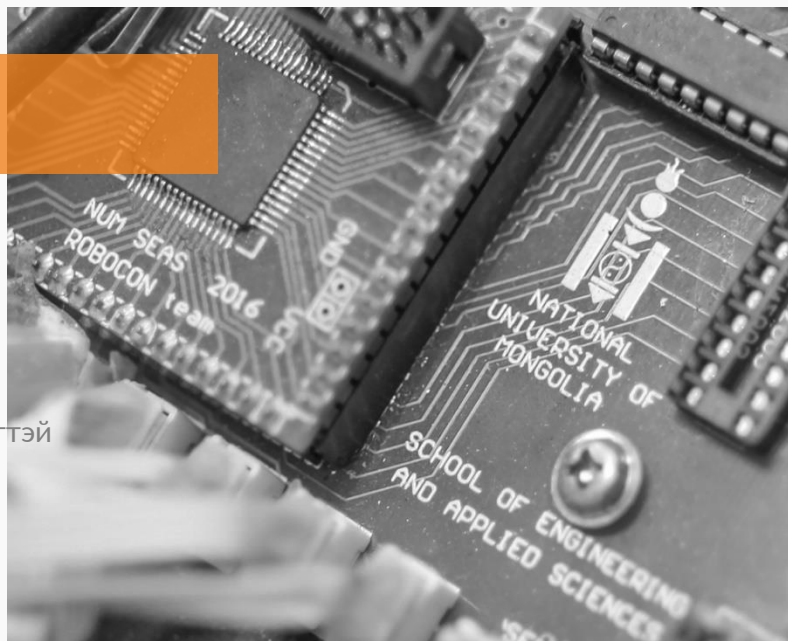


Электроник, Холбооны Инженерчлэлийн ТЭНХИМ

DECE Quick facts

Товчоор

- Багш нар: 27
 - Профессор – 2
 - Зөвлөх профессор - 4
 - Дэд профессор – 9
 - Lecturers – 12
 - Нийт багш нарын 78% докторын зэрэгтэй
- Сургалтын хөтөлбөр: 9
 - Бакалавр – 4
 - Магистр – 3
 - Доктор – 2
- Сургалтын лаборатори - 9
- Судалгааны – 3



1982, at NUM was the pioneering base of the computer science division in Mongolia.

In 2014 after NUM's reorganization, and unified all the study programs and teaching staffs involved in Computer Science, Information System Information Technology, and Software Engineering.

ЭХИТ Сургалтын хөтөлбөрүүд

B Bachelor – 4

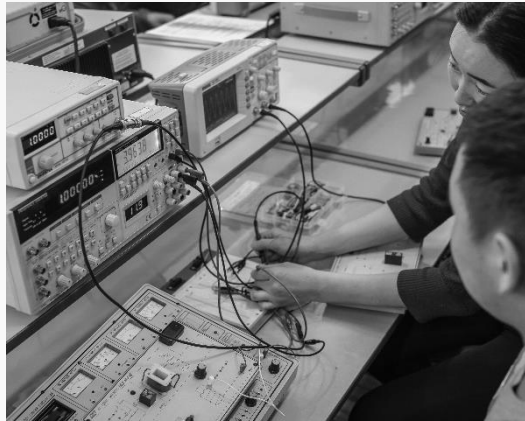
M Master – 3

D Doctorate – 2

1	Холбооны технологи	B	4	Электроник	M D
2	Компьютерийн сүлжээ	B M	5	Сэргээгдэх Эрчим Хүч	M
3	Электроник автоматжуулалт	B	6	Сэргээгдэх Эрчим Хүчний инженер	B D

ЭХИТ Сургалтын лабораториуд

Student facilities



SIMULATION LAB

Associate professor BAYARPUREV Mongol

E-mail: bayarpurev@seas.num.edu.mn



ELECTROMAGNETICS LAB

Emeritus professor DAMDINSUREN Erkhembayar

E-mail: damdinsuren@seas.num.edu.mn



COMMUNICATION SYSTEMS LAB

Professor BYAMBAJAV Dorj

E-mail: byambajav@seas.num.edu.mn

ЭХИТ Сургалтын лабораториуд (2)

Student facilities



POWER ELECTRONICS LAB

Associate professor AMARBAYAR Adyabat

E-mail: amarbayar@seas.num.edu.mn



CAD LAB

Associate professor LODOIRAVSAL Choimaa

E-mail: lodoiravsal@seas.num.edu.mn



COMPUTER NETWORKING LAB

Associate professor USUKHBAYAR Baldangombo

E-mail: usukhbayar@seas.num.edu.mn

ЭХИТ эрдэм шинжилгээний статистик

Сүүлийн 5 хичээлийн жилд

1 WoS бүртгэлтэй
сэтгүүлийн өгүүлэл 30

2 Зохиогчийн эрх/ патент 2 5

3 Ном сурах бичиг 2

4 Судалгааны төсөл 18 4

5 ЭШ-ийн өгүүлэл 116

6 Гарааны компани 1 1

Renewable Energy & Power Electronics Laboratory

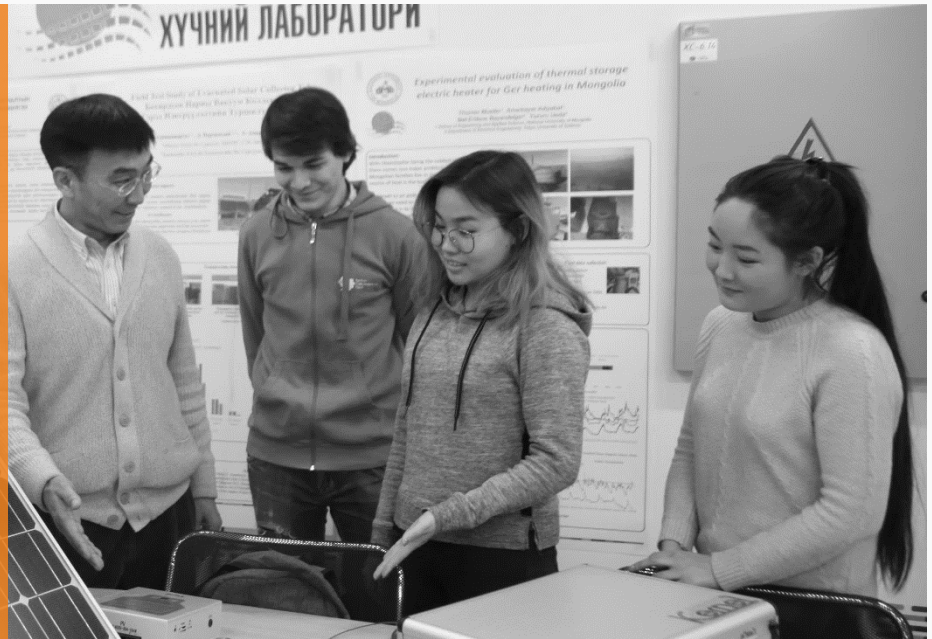
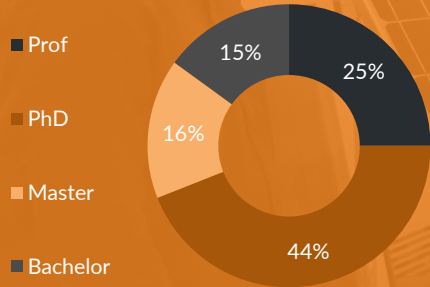


www.seas.num.edu.mn

RESEARCH AREA

- ✓ 3D modeling
- ✓ Virtual reality, Augmented reality
- ✓ Project Mapping
- ✓ 3D Animation
- ✓ Mathematical Programming and Computer Simulation

MEMBERS



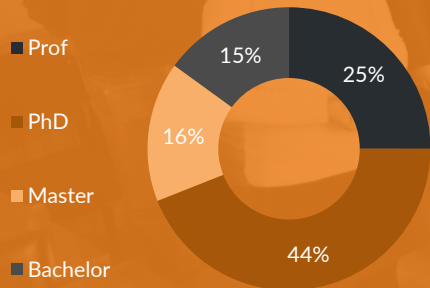
Machine Intelligence Laboratory (MIL)

 www.milab.num.edu.mn


RESEARCH GROUPS

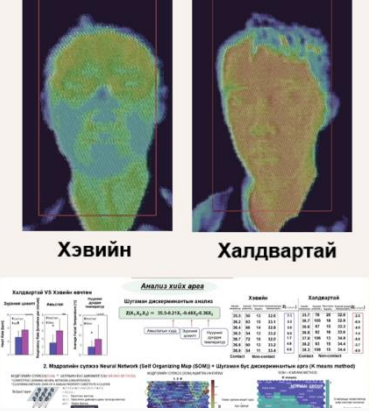
- ✓ Computer Vision Group
- ✓ Knowledge and Data Engineering Group
- ✓ Natural Language Processing Group
- ✓ 3D Imaging and Antenna Group
- ✓ Robotics Group

MEMBERS



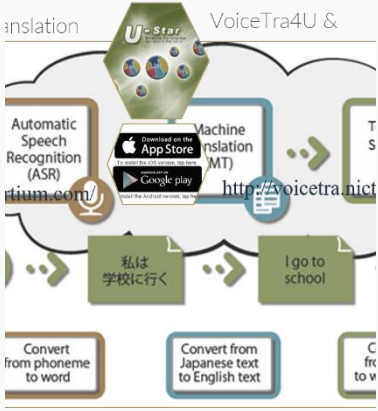
MIL Featured Projects

 www.milab.num.edu.mn



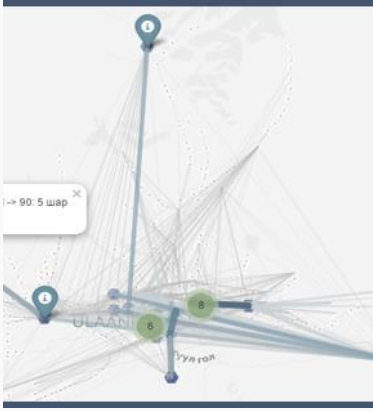
INFECTION SCREENING SYSTEM

Joint research project between SEAS and Tokyo Metropolitan University.



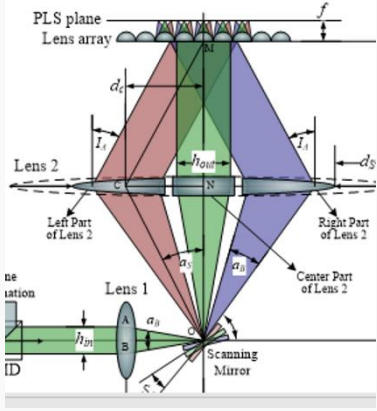
MULTI LANGUAGE SPEECH TRANSLATION

VoiceTra is a speech translation app that translates your speech into different languages. With an easy-to-use interface, you can also check whether the translation is correct.



TRAFFIC FLOW ANALYSIS ON PUBLIC TRANSPORT

Joint research project between NUM and Kumamoto University. The project funded by Mongolian and Japanese Governments



HIGH RESOLUTION INTEGRAL IMAGING DISPLAY

The algorithm based on odometer and range-finder that robust and easy to implement.

Компьютерийн сүлжээ болон аюулгүй байдал

Д.Баттулга

- ✓ Wireless Communication,
- ✓ Next generation mobile communication,
- ✓ SDN, SON

Х.Золзаяа

- ✓ Сүлжээний аюулгүй байдал
- ✓ Хиймэл оюун, машин сургалт
- ✓ IDS

Б.Өсөхбаяр

- ✓ Мэдээллийн аюулгүй байдал,
- ✓ Криптологи,
- ✓ Үйлдлийн систем

У.Ууганбаяр

- ✓ Мэдээллийн аюулгүй байдал
- ✓ Кибер менежмент
- ✓ Risk management

Н.Угтахбаяр

- ✓ Cyber security management
- ✓ Network and information security
- ✓ Machine learning and ICT
- ✓ Privacy

Ж.Анхзаяа

- ✓ Сүлжээний менежмент
- ✓ Хиймэл оюун, машин сургалт

ЭШ-ийн ӨГҮҮЛЛҮҮД

Ugtakhbayar, N., Usukhbayar, B., Baigaltugs, S. (2020). A Hybrid Model for Anomaly-Based Intrusion Detection System. In: Pan, JS., Li, J., Tsai, PW., Jain, L. (eds) Advances in Intelligent Information Hiding and Multimedia Signal Processing. Smart Innovation, Systems and Technologies, vol 157. Springer, Singapore. https://doi.org/10.1007/978-981-13-9710-3_44

Kherlenchimeg, Z., & Nakaya, N. (2020). A deep learning approach based on sparse autoencoder with long short-term memory for network intrusion detection. IEEJ Transactions on Electronics, Information and Systems, 140(6), 592-599. <https://doi.org/10.1541/ieejieiss.140.592>

Davaasambu, B., Telmuun, T., Sasko, D., Keping, Y., & Sodbileg, S. (2021). Novel anchor-selection scheme for distributed mobility management. Computer Science, 22, 143-163.

Telmuun, T., Yu, K., & Battulga, D. (2021). Enhanced Conditional Handover for 5G Heterogeneous Networks. In Advances in Intelligent Information Hiding and Multimedia Signal Processing (pp. 212-220). Springer, Singapore.

Jamsrandorj, A., Nguyen, M. D., Park, M., Kumar, K. S., Mun, K. R., & Kim, J. (2021, November). Vision-Based Gait Events Detection Using Deep Convolutional Neural Networks. In 2021 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC) (pp. 1936-1941). IEEE.

International Cooperation

Many ways to collaborate

Joint Research

25 research projects funded 9 different organizations

Fellowship Programs

faculties awarded fellowships & post-doctoral scholarships

Student Exchange

students awarded ERASMUS+, AUSAID, Fulbright, Eurasia, UNINET program scholarships



Multi-organizational Partnerships

ERASMUS+ joint programs for curriculum development & capacity building

Capacity Building

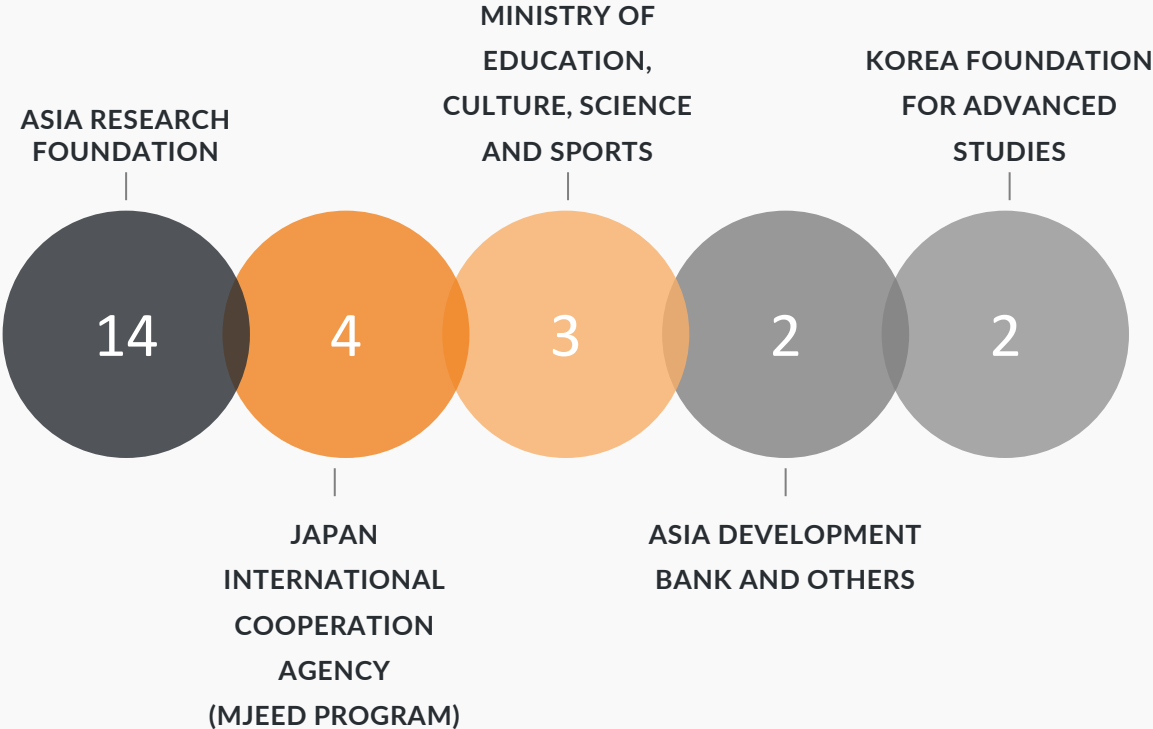
young faculties study abroad their doctoral degree seeking

Call for Fellowship Research

visiting professors & researchers - 30K USD for 6 months

International Joint Project Funding

Total of 463M MNT granted, since 2015



Thanks for Your attention!

Contact Us:



seas.num.edu.mn



contact@seas.num.edu.mn