

# State of Engineering for Global Development

## ASIA

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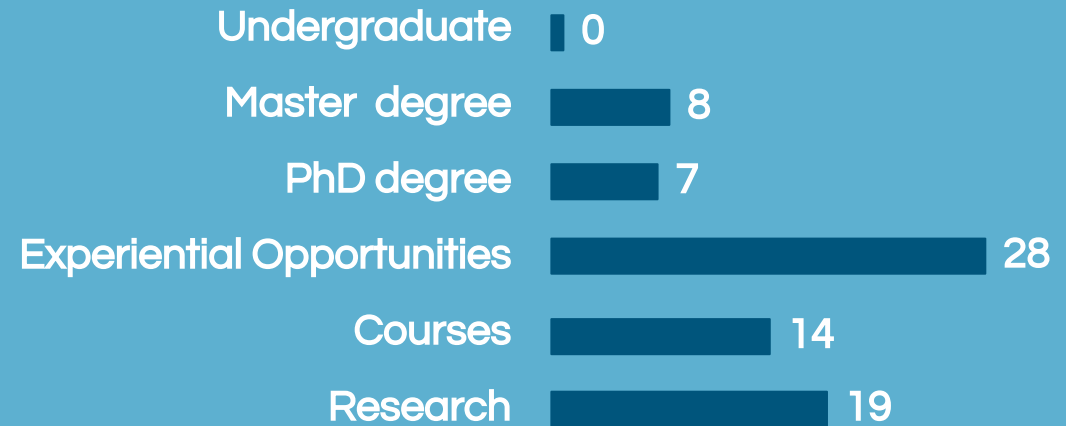
The 2020 state of Engineering for Global Development (EGD) in academic institutions in Bangladesh, Bhutan, India, Japan, Nepal, & South Korea.

2020



19 Institutions

### EGD Opportunities at Asian Institutions



Engineering for Global Development (EGD) is a growing field in which technology and design are utilized to support communities around the world and improve quality of life. The discipline has been in practice for several years now in different parts of the world including Asia. Due to the broadness of this field the terminologies and titles vary everywhere within the world and even within the Asian region - such as "Appropriate technology, Sustainable engineering", "Rural technology and engineering", "Indigenous engineering", "Design for Innovation", "Innovation and Incubation hub", "Community Project", "Design for development". This report attempts to comprehensively highlight the many definitions, programs (masters, postgraduate and innovation centers, etc.) and professors and research groups dedicated to this work in different countries with the intention to further connect and understand the state of EGD-related programs across the continent.

#### Disclaimer

To E4C's knowledge, this is the first report of this kind to attempt to list out all the programs in EGD. If you identify any programs or professors that you believe should also be included in this report, please email us at [info@engineeringforchange.org](mailto:info@engineeringforchange.org).

## EGD Degrees in Asia

**Indian Institute of Technology Bombay (IITB)**  
Centre for Technology Alternatives for Rural Areas, Ms & PhD

**Indian Institute of Technology Delhi (IITD)**  
Centre for Rural Development and Technology, PhD

**Indian Institute of Technology Guwahati (IITG)**  
Center for Rural development, MS & PhD

**Indian Institute of Technology Roorkee (IITR)**  
Design innovation Center, MS

**Tokyo Institute of Technology**  
Global Engineering for Development, Environment and Society, Ms & PhD

**University of Fukuki**  
Global Engineering Program for International Students (GEPIS), Ms



**Want to learn more?**  
To read about these programs in detail, [click here for the full report.](#)



# Institutions with EGD offerings in Asia

## India

Society for Innovation and Entrepreneurship (SINE), Indian Institute of Technology Bombay (IITB)

Technology and Development Solutions Cell (TDSC), Indian Institute of Technology Bombay (IITB)

Centre for Technology Alternatives for Rural Areas, Indian Institute of Technology Bombay (IITB)

IDC School of Design, Indian Institute of Technology Bombay (IITB)

Biomedical Engineering and Technology Innovation Centre (BETIC), Indian Institute of Technology Bombay (IITB)

Centre for Rural Development and Technology, Indian Institute of Technology Delhi (IITD)

AssisTech, Indian Institute of Technology Delhi (IITD)

ACT4D: Appropriate Computing Technologies for Development, Indian Institute of Technology Delhi (IITD)

Social Innovation Lab, Indian Institute of Technology Delhi (IITD)

Dr Kiran C Patel Centre for Sustainable Development, Indian Institute of Technology Gandhinagar (IITGN)

Innovation and Entrepreneurship Center, Indian Institute of Technology Gandhinagar (IITGN)

Center for Rural development, Indian Institute of Technology Guwahati (IITG)

Sustainability & Social Innovation Lab (SSI), Indian Institute of Technology Guwahati (IITG)

Startup Incubation and innovation center, Indian Institute of Technology Kanpur (IITK)

Center for Rural Development and Innovative Sustainable Technology, Indian Institute of Technology Kharagpur (IITKGP)

Indo German Center for Sustainability (IGCS), Indian Institute of Technology Madras (IITM)

Healthcare Technology Innovation Centre (HTIC), Indian Institute of Technology Madras (IITM)

IITM- Incubation Cell (IITMIC), Indian Institute of Technology Madras (IITM)

Rural Technology Business Incubator (RTBI), Indian Institute of Technology Madras (IITM)

Entrepreneurship Cell of IIT Madras (E-Cell), Indian Institute of Technology Madras (IITM)

Centre for Innovation (CFI), Indian Institute of Technology Madras (IITM)

Center for Social Innovation and Entrepreneurship (CSIE), Indian Institute of Technology Madras (IITM)

Design Innovation Center (DIC), Indian Institute of Technology Roorkee (IITR)

# Institutions with EGD offerings in Asia *(continued)*

## India *(continued)*

Tinkering Lab, Indian Institute of Technology Roorkee (IITR)

Technology Incubation and Entrepreneurship Development Society (TIEDS), Indian Institute of Technology Roorkee (IITR)

Center for Healthcare Entrepreneurship, Indian Institute of Technology Hyderabad (IITH)

Design Innovation Centre (DIC), Indian Institute of Technology Hyderabad (IITH)

Technology business incubator (VIT-TBI), Vellore Institute of Technology

## Bangladesh

Bangladesh University of Engineering and Technology, Institute of Appropriate technology

## Bhutan

Jigme Namgyal Engineering College, Center for Appropriate technology (CAT)

## Nepal

Nepal Innovation Technology and Entrepreneurship Center (NITEC), Pokhara University

Design Lab, Kathmandu University

## Japan

Graduate School of Information Technology, Kobe Institute of Computing (KIC)

The Appropriate Technology and Science for Sustainable Development program, University of Tsukuba

Global Engineering for Development, Environment and Society, Tokyo Institute of Technology

Engineering Sciences and Design, Tokyo Institute of Technology

Innovation Science, Tokyo Institute of Technology

Technology and Innovation Management, Tokyo Institute of Technology

Global Engineering Program for International Students (GEPIS), University of Fukuki

Global Engineering Program for Research and Development (GEP for R&D), University of Fukuki

## South Korea

Design for Manufacturing (DFM), Seoul National University



**Want to learn more?**

To view the full list of researchers and centers, [click here for the full report.](#)

## EGD Conferences

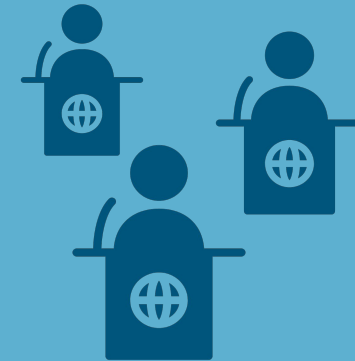
Rural Technology Development and Delivery, India

Science and Technology ODA International Conference, South Korea

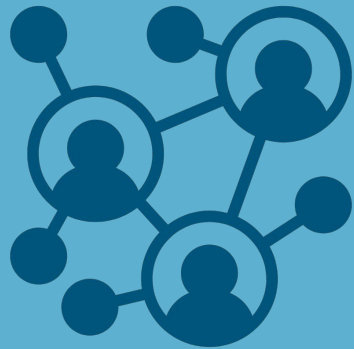
Innovations and Technology for Rural India (ITRI), India

Indian Science Congress Association – Rural Development, India

International E-Conference on “Innovation in Rural Empowerment, Social Dynamics & Welfare in India”, India



## EGD Regional Networks



Rural Technology Action Group (RuTAG- Popular Engineering Network), India

Unnat Bharat Abhiyan (UBA) Network , India

Honeybee Network, India

RECAST (Research Center For Applied Science And Technology), Nepal

Academic society for Appropriate technology, South Korea

The Japanese Society of Irrigation, Drainage and Rural Engineering (JSIDRE), Japan



## Country highlight

# India

## Indian Institute of Technology Guwahati (IITG)

### Center for Rural development

- + Year long service-learning design course for academic credit
- + Access to Innovation for International Development Lab and instructors
- + Annual conference
- + Model adopted by over 30 institutions (19 in North America) and 100+ high schools since 1995

### Sustainability & Social Innovation Lab

- + Global Engineering Studies Minor
- + Language study
- + Study abroad
- + Cultural training
- + Domestic + international work/research experiences
- + Global design team projects

### Courses

- + Engineering in a Global Context
- + Global Engineering
- + Globalization and Engineering
- + Global Design Teams



## Country highlight

# Japan

## Tokyo Institute of Technology

### Global Engineering for Development, Environment and Society

- + Offers Masters and PhD degree
- + Access to Innovation for International Development Lab and instructors
- + Annual conference
- + Adopted by over 30 institutions (19 in North America) and 100+ high schools since 1995

### Engineering Sciences and Design

- + Global Engineering Studies Minor
- + Language study
- + Study abroad
- + Cultural training
- + Domestic + international work/research experiences
- + Global design team projects

### Technology and Innovation Management

- + Engineering in a Global Context
- + Global Engineering
- + Globalization and Engineering
- + Global Design Teams

