PROGRAM NAME

UMAP – ITS: Addressing Climate Change in Asia and the Pacific

TOPIC

Disaster and Climate Risk Resilience in Indonesia

HOST INSTITUTION

Institut Teknologi Sepuluh Nopember (ITS) Surabaya Indonesia
ITS Sukolilo Campus, Surabaya East Java 60111

SCHEDULE & DURATION

24 August 2026 to 18 December 2026
(14 weeks, 116 days, travel days excluded)

LANGUAGE OF INSTRUCTION

English

PROGRAM OVERVIEW

The Queen Elizabeth Scholarship – UMAP Climate Change Adaptability Project at Institut Teknologi Sepuluh Nopember (ITS) is a comprehensive academic and experiential program focused on building resilience to climate change and disaster risks. It offers international students theoretical and practical learning through courses in Environmental Engineering and Urban and Regional Planning, research internships, and community projects. Activities such as the *Disaster Resilient School* initiative and local environmental programs integrate technology, innovation, and indigenous knowledge. The program prepares globally minded students to become future leaders in sustainability, environmental policy, and disaster risk management.

PROGRAM OBJECTIVES

The Queen Elizabeth Scholarship – UMAP Climate Change Adaptability Project at Institut Teknologi Sepuluh Nopember (ITS) aims to prepare students to engage meaningfully in global climate action while addressing the urgent needs of local communities in Indonesia. The program builds a strong academic foundation in climate science, sustainability, and disaster management through courses in Environmental Engineering and Urban and Regional Planning. These classes introduce theoretical frameworks on climate adaptation and encourage critical

thinking on how global environmental challenges manifest in local contexts, particularly in vulnerable coastal and urban areas.

Beyond academics, the program emphasizes applied learning through research internships and community-based projects. A flagship initiative—the Disaster Resilient School project—employs virtual reality (VR) technology to enhance disaster preparedness, connecting scientific innovation with real-world education. Students also participate in activities such as mangrove planting, urban farming, and environmental workshops, fostering collaboration with local communities to develop nature-based solutions and strengthen resilience.

By integrating modern science with indigenous knowledge systems, the program promotes inclusive, culturally sensitive approaches to sustainability. Ultimately, it equips participants with the knowledge, practical skills, and intercultural competencies to become future leaders in climate resilience, environmental policy, and disaster risk management—while contributing tangible benefits to Indonesian communities.

UNIVERSITY OVERVIEW & REPUTATION ON SUSTAINABLE DEVELOPMENT GOALS (SDGs)

Institut Teknologi Sepuluh Nopember (ITS) is a leading Indonesian university established in 1960, focused on science, technology, and innovation. Located in Surabaya, ITS has over 1,000 faculty members and 27,000 students. Its research areas include manufacturing, AI, biomedical tech, sustainable energy, maritime science, and climate change. ITS also hosts a Science Techno Park with centres in automotive, maritime, ICT, and robotics. The university aims to contribute to education, research, and industry, fostering inclusivity and lifelong learning.

In the journey of SDGs empowerment, ITS integrated green solutions into STEM Education and Innovation. In 2014, ITS released a mandatory course of Environmental Sciences into its curriculum, allowing Global Learning Series on SDGs (GLS on SDGs), offline/online program carefully planned to spread awareness on SDGs and to encourage multidisciplinary learning, to grow. As many as 297 lecturers, professionals, and researchers spoke in the session, 89 universities from 61 countries participated, and 8,577 students empowered from 2020 to 2024.

In 2021, ITS leaped from No. 401-600 in 2020 to No. 64 in THE Impact Rankings 2021 globally. Aside from SDG 17 (Partnership for the Goals), SDG 1 (No Poverty), SDG 7 (Affordable and Clean Energy), and SDG 8 (Decent Work and Economic Growth) were selected as the highest SDGs scores in Indonesia, ITS was ranked No. 1.

Manifesting greatly in Goal 17, ITS strengthened teaching innovation by creating case-based and project-based courses (flagship programs) in SDGs including Global Project-based Learning in Sustainable Building, Blue Energy for Blue Economy, Data Utilization and Clean Energy, CommTECH Camp, and UMAP Discover Camp.

In 2024, ITS created Sustainability Test, designed to be completed by all students, staff and lecturers. Three phases of the test were conducted. As many as 4720 stakeholders of ITS participated.

In 2025, ITS hostes three (3) students from Canadian university for UMAP-ITS Queen Elizabeth Scholarship Climate Change Resilience 2025.

Short Bio in Number:
- Academic Staffs: 1.200 (13% Professors)
- Administrative Staffs:1.000
- Students: 27.000
- Faculty: 9
- Department: 41
- Laboratories: 190
- Research centres: 10
- Student activity centres: 8
- Supporting units: 7

Our faculties:
- Faculty of Civil, Planning, and Geo Engineering
- Faculty of Creative Design and Digital Business
- Faculty of Science and Data Analytics
- Faculty of Marine Technology
- Faculty of Vocational Studies
- Faculty of Industrial Technology and Systems Engineering
- Faculty of Intelligent Electrical and Informatics Technology
- School of Interdisciplinary Management and Technology
- Faculty of Medicine & Health

PROGRAM STRUCTURE

The program consists of 3 elements, i.e., class-based courses, a research internship or community service project on climate change, and a final report.

A. Courses on Climate Change

Participants are required to take at minimum 2 general courses related to climate change in Department of Environmental Engineering and/or Department of Urban and Regional Planning at ITS.

Courses:

1. Department of Environmental Engineering
    a. Climate Change : 2 SKS
    b. Green Technology : 2 SKS

2. Department of Urban and Regional Planning
    a. Natural Resources and Environmental System : 3 SKS
    b. Sustainable Development : 3 SKS

Note:

- *The courses are intended for undergraduate students and are expected to be appropriate for all international students from a variety of backgrounds.*
- *1 SKS is equivalent to 38 hours student working load and 13 hours of teaching.*

B. Internship Project on Climate Change

Project Name: **Disaster Resilient School**
Duration: **August - December 2025**

Overview:

This project is supervised by the ITS Research Center for Disaster Mitigation and Climate Change. Students engage in a hands-on learning experience that integrates virtual reality (VR) technology to assess and enhance disaster preparedness in schools located in vulnerable areas. As climate change increases the frequency and severity of natural disasters, proactive disaster mitigation becomes a crucial part of climate adaptability efforts.

The initiative provides participants with a comprehensive understanding of disaster risks, response strategies, and resilience-building measures, enabling them to contribute to sustainable and adaptive solutions for at-risk communities. Beyond technical innovation, the project also emphasizes community engagement and service, focusing on empowering vulnerable groups such as children, the elderly, and local women's organizations (PKK). Through educational activities, awareness campaigns, and participatory workshops, students help strengthen local capacity and promote inclusive disaster preparedness.

By merging technology through TENPINA (Technology Enhanced Natural disaster Preparedness with Interactive and eNgaging Approach), education, and community collaboration, this initiative enables international students to make meaningful

contributions to local communities. Through interactive and realistic VR-based simulations, TENPINA enhances disaster awareness, strengthens resilience among vulnerable groups, and fosters a shared culture of preparedness. Ultimately, the project illustrates how scientific innovation and social empowerment can work together to build safer, more resilient, and sustainable societies.

C. Community Engagement Project

a. Urban Farming, tree planting, and trash sorting - In the SDGs and Eco Campus Unit, students will contribute to campus sustainability efforts by engaging in greening initiatives, reforestation, and enhancing food security through urban farming and tree planting. In addition to that, students take part in the effort of enhancing recycling efficiency through trash shorting in TasTe, and making it more accessible for everyone.

b. Mangrove planting - Sharpening the awareness of the crucial role in environmental sustainability, disaster mitigation, and community livelihood in the coastal area, students take part in mangrove planting.

c. EduWorkshops - To make disaster education more engaging, accessible, and effective to prepare communities for real-life-emergencies, students take part in EduWorkshop related to climate change for junior and high school students in Surabaya.

D. Final Report

At the end of the internship and community engagement project, students are required to submit a final report reflecting on their experiences and insights into climate change action in Indonesia. This report serves as an assessment tool, evaluating their active participation, critical understanding, and contributions throughout the project. It also provides an opportunity for students to articulate the impact of their engagement and propose innovative solutions for enhancing community resilience.

WEEKLY STUDY LOAD

According to the program syllabus, the weekly study load will be 20 hours/week, divided in:

A.	Courses on Climate Change	4 hours/week
B.	Internship Project	10 hours/week
C.	Community Engagement	3 hours/week
D.	Final Project	3 hours/week

ADDITIONAL CULTURAL ACTIVITIES

ITS will arrange several cultural activities for international students every semester as follow:

- Global Unity Fair
- Cultural Camp
- Adventurous Trip to Mount Bromo
- Sports Day
- Campus Tour
- City Tour

Students will have access to ITS facilities including laboratories of the related departments (total number of laboratories 130), research centres of the related projects (total: 12), student activity centres (total: 8), and supporting units (total: 7) such as sports facilities, canteen, library, and others.

For further information regarding those activities detail, please kindly visit our website through this link: https://www.its.ac.id/international/its-international-students/activities/

CREDITS

320 hours (7 UCTS) and Certificate of Attendance

ASSESSMENT

A. Each course may have different types of assessment according to the nature of the course and the lecturer in charge. However, typical assessment looks like the following:
   - minimum 80% of attendance
   - class participation
   - assignment
   - quizzes
   - mid exam and final exams
   - project
   - presentation

B. Assessment of Internship Project on Climate Action
   - Active participation & contribution
   - Project understanding and problem solving
   - Teamwork and collaboration

C. Assessment of Community Engagement
   - Active participation & contribution
   - Meaningful engagement and involvement
   - Self-reflection of the program

D. Assessment of Final Project:
   - Reporting & documentation
   - Presentation delivery & reflection

GRADING

Grade varies from 0-100 with the passing grade of 56.
Grading follows ITS grading system as follows:

- 86-100 : A
- 76-85 : AB
- 66-75 : B
- 61-65 : BC
- 56-60 : C (Pass)
- 41-55 : D
- 0-40 : E

REQUIREMENTS

- Students must be enrolled at an eligible UMAP Canada member institution throughout the duration of the placement
- Open to students from diverse disciplines
- Strong interest in climate resilience, disaster risk education, and capacity building

- Basic knowledge of climate change impacts, sustainability, and disaster management is preferred
- Completing application and submitting documents (application form, passport size digital photo, copy of passport, academic record, etc) through ITS' international students' admission system - https://simad.its.ac.id/

PROGRAM COST

- Waived tuition fee
- Visa & limited stay permit fees are IDR. 6.000.000*
- Another administrative permit fee is IDR 3.750.000*

**) The cost must be paid after the release of the Letter of Acceptance and maximum 2 months prior to the arrival.*

TIMELINE

30 April 2026	: Student nomination (UMAP)
1-11 May 2026	: Placement period (UMAP)
12 - 16 May 2026	: Student selection and confirmation of award (UMAP)
16 - 31 May 2025	: Selected students completing admission (ITS)
1 - 15 June 2025	: Admission and selection process at home institution (ITS)
16 - 20 June 2025	: Visa and administrative fee payment (ITS)
22 June - 18 July 2025	: Visa and stay permit registration (ITS)
27 July 2025	: Pre-departure orientation (ITS)
1 - 10 August 2025	: Estimated arrival time (ITS)
11 - 17 August 2025	: Orientation and integration (ITS)
24 August 2025	: Program starts (ITS)
14 December 2025	: Program ends (ITS)

CONTACT PERSON

Institut Teknologi Sepuluh Nopember (ITS)
Global Engagement

Coordinator of the Program:

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UMAP-ITS Climate Change Adaptability Project:

- Administration: Nastiti Primadyastuti | int_off@its.ac.id
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