

SUB COURSE A : RING OF FIRE

Located in the Pacific “Ring of Fire” Indonesia is incredibly susceptible to natural disasters. Living along the Ring of Fire means living with the volcanic activities. The Ring of Fire is a geographic region that contains over 450 volcanoes and is home to nearly 90% of the world’s earthquakes. On average, Asia experiences over 115 natural disaster a year. In this course, participants will learn about geo-archeology and Indonesia’s geothermal potencies. The Indonesian archipelago is located in one of the most tectonically active regions in the world, nestled near the boundaries of the Indo-Australian, Pasific, Philippine and Eurasian tectonic plates. The region’s unique geological complexity that is reponsible for its dynamic geothermal activity. In CommTECH Camp Highlight 2016, ring of fire’ subjets will take participants to discuss about environment civilization in the beauty of ring of fire and volcanic islands.

Level : Bachelors, masters, or doctoral students with or without specific background in the area of Geophysical Engineering.

Lecturer : Dr. Widya Utama, DEA
Dr.Ir. Amien Widodo, M.S.
Dr. Ayi Syaeful Bhari, S.si, MT

Date : 22nd – 31st of August 2016

Min. Participants : 15 persons

Details of schedule :

Day 1		Day 6	
	Opening Ceremony	Morning	City Tour
Noon	Lunch	Noon	SME Visit
	Campus Tour	Evening	Trip to Bromo
Evening	Welcoming Dinner		
Day 2		Day 7	
Morning	Course	Morning	Bromo Adventure
Noon	Indonesian Language Course Traditional Games	Noon	Rafting
Day 3		Day 8	
Morning	Course	Noon	Preparation for Presentation Visit SME's Center
Noon	Traditional Music & Dance Visit Mirota Batik		
Day 4		Day 9	
Morning	Course	Morning	Presentation in Department for ITS Freshmen
Noon	Course on Ethno-Photography Course on Tourism Documentary Video	Noon	Presentation & Exhibition for the Project
		Evening	Dinner with City Mayor
Day 5		Day 10	
All Day	Site Visit	Morning	Amazing Race - Surabaya Walk
		Evening	Closing Ceremony & Fireworks

Synopsis of the course :

Topic 1 : Indonesia in the middle of the Ring of Fire

Geological Machine : Plate Tectonics

Volcanic Mountains : Beauty or Disaster

Topic 2 : Living in the volcanic neighborhood

Volcanic Island : The Beauty and The Blessing

Disaster and local wisdoms

Topic 3 : Local community in volcanic area

Volcanoes and future civilizations

Lecturers :

1. Name : Dr. Widya Utama, DEA
Phone Number : +62811 3409 911
Email : widya@geofisika.its.ac.id



Academic and Research Interest :

- In 2015, Member of Research Collaboration between ITS and National Defence Team.
- Utama, Widya. 2015. *Application of Microtremor HVSR Method for Assessing Site Effect in Residual Soil Slope, IJBAS*
- Utama, Widya. 2015. *Leading Research Universities from 2013 to 2014 - A researcher with the Development Research Title Robust Filtering VLF - EM data for identification of land sliding*
- Utama, Widya. 2014. *Investigation of Water Resources with Geolistic Method for Supporting the Development of Settlements in the village Benowo district:Kediri*
- Utama, Widya. 2014. *Soil Testing 2014 (Soil Test) factory PT. Cargill Indonesia in Pasuruan Industrial Estate Rembang (PIER). Pasuruan*

2. Name : Dr. A. Syaeful Bahri, S.si., MT.
Phone Number : +628123 563959
Email : syaeful_b@geofisika.its.ac.id



Academic and Research Interest :

- Valuation of Building strength against earthquake Vibrations using Microtremor Analysis (case study: the city of Surabaya), Production Editor, Journal of Physics: Conference Series, IOP Publishing, Dirac House, Temple Back, Bristol BS1 6BE, UK
- Combination of Active and Passive Seismic Analyses for Embankment Characterization, Applied Mechanics and Materials Vol 771 (2015) pp 179-182 Submitted: 2014-07-24 Trans Tech Publications, Switzerland
- Application of Multivariate EMD to Improve Quality VLF-EM Data: Synthetic and Fields Data, Applied Mechanics and Materials Vol 771 (2015) pp 170-173, (2015) Trans Tech Publications, Switzerland

- The VLF-EM imaging of potential collapse on the LUSI embankment, Journal Applied Geophysics, Elsevier
- Fast, simultaneous and robust VLF-EM data denoising and reconstruction via multivariate empirical mode decomposition, Computers & Geosciences Elsevier
- Widyaningrum, Y, Sungkono, Bahri, AS., Santosa, BJ., Combine Active and Passive Seismic Analysis for Embankment Characterization, International Seminar on Instrumentation, Measurement and Metrology, UGM and ITB, August 27-28, 2014
- Yusron Feriadi, Sungkono, BJ Santosa, Bahri, AS., Santos, FAM., Detection of Fracture Zone using VLF Method with NA-MEMD in the Lapindo Mud Vulcano, East Java, International Seminar on Instrumentation, Measurement and Metrology, UGM and ITB, August 27-28, 2014
- Sungkono, Bahri, AS., Santosa, BJ., Application of Multivariate EMD to Improve Quality VLF-EM Data: a Synthetic and Fields Data, International Seminar on Instrumentation, Measurement and Metrology, UGM and ITB, August 27-28, 2014.

3. Name : Dr.Ir. Amien Widodo, M.S.
Phone Number : +628123 563959
Email : syaeful_b@geofisika.its.ac.id



Academic and Research Interest :

- Widodo, Amien.2013. *Fast Mapping for Disaster Effect of Kelud Mountain's Eruption with Drone*. Jurnal Riset Kebencanaan Indonesia, Volume 1 no. 1, Mei 2015, Hal. 25, ISSN : 2443-2733
- Widodo, Amien.2013. *Development of Structural Health Monitoring and Early Warning System for Reinforced Concrete System*. Symposium on Earthquake and 3rd International Disaster Mitigation
- Widodo, Amien.2013. *Stability Assesment for Mud Embankment of Sidoarjo*.2013. Prosiding Seminar Nasional Kebumian ke 6, hal. 278-285.
- Widodo, Amien.2012. *Effect of Mountain's Ash concrete Lightweight with Foam System Agent*. Prosiding Seminar Nasional ke 7 Tahun 2012 Rekayasa Teknologi Industri dan Informasi.