Faculty: Faculty of Science
Department: Department of Physics
Curriculum Title: Doctor of Philosophy Program in Geophysics

Curriculum Description
Doctor of Philosophy Program in Geophysics aims to create graduates with advanced skills and capabilities who are able to explain and apply the principles of geophysics to original and contemporary geophysical problems and innovations. Graduates are able to integrate and apply the geophysical knowledge to societally relevant problems, including natural hazards, resource exploration and management, and environmental issues with practical experiences and by this create intellectual wisdom, virtue, competency and international world-view vision. Moreover, graduates can understand the place of geophysics in the larger picture of the intellectual landscape of inquiry, including connections between science and history, philosophy, ethics and the formulation of public policy.

Type of Program
- ☑ Regular Program (Monday – Friday)
- ☑ Regular Program (Monday – Friday) and International Program
- ☑ Special Program (Saturday – Sunday)

Dissertation Theme
Geophysics
Researchers have focused on the understanding the earth’s structure and its processes, especially in southern Thailand, on geological hazards (e.g. earthquakes, tsunami, sinkholes, landslides), on the explorations for hydrocarbons, minerals and groundwater, and on solving environmental and engineering problems using a broad spectrum of geophysical and geological methods (e.g. gravity, magnetic, seismic, electric, seismology, paleo-magnetism, geological mapping).

Prospective students
Plan 1.1
1. A student who holds a Master of Science in Geophysics, Physics, Geology degree or a degree from a relevant program or a Master of Engineering degree. A student who has experiences in geophysical research with a published paper depends on the consideration of program committee.
2. Other qualifications follow the regulations of the university.
Plan 1.2

1. A student who holds a Bachelor of Science in Geophysics, Physics, Geology degree or a degree from a relevant program or a Bachelor of Engineering degree. An honor student who has a GPA of higher than 3.00 and has experiences in geophysical research with published paper depends on the consideration of the program committee.

2. Other qualifications follow the regulations of the university.

Prospective advisors

>> Asst. Prof. Dr. Helmut Dürrast
Research Interest
Geology and Geophysics, Petrophysics, Earthquakes, Tsunami, Groundwater Systems, Geothermal Systems and Energy in Southern Thailand

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>> Dr. Kamhaeng Wattanasen (Dr. Kamhaeng Wattanasen)
Research Interest

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>> Assoc. Prof. Dr. Tripob Bhongsuwan
Research Interests
Applied Geophysics, Rock Magnetism and Paleomagnetism, Environmental Radioactivity

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>> Asst. Prof. Dr. Sawasdee Yordkayhun
Research Interests
Environmental and engineering geophysics, seismic exploration and tomography.

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Dr. Kamhaeng Wattanasen

EDUCATION
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Lic. (Applied Geophysics), Luleå University of Technology, Sweden
Ph.D. (Applied Geophysics), Luleå University of Technology, Sweden

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PUBLICATION (5 YEARS AGO)
3) Wattanasen, K., Arrykul, S., and Lohawijarn, W., “Groundwater investigation in hard rock using remote sensing and geophysical methods in an area of economical trees plantation, western Songkhla Lake”, 2012; 74th European Association of Geoscientists and Engineers Conference and
Exhibition 2012 Incorporating SPE EUROPEC 2012: Responsibly Securing Natural Resources, pp. 2042-2046

RESEARCH INTEREST

- Hydrogeophysics / groundwater geophysics
- Environmental and Engineering geophysics
- Structural geophysics
EDUCATION
B.Sc. (Physics)(1st Class Honors), Prince of Songkla University, Thailand.
M.Sc. (Applied Geophysics) Chiangmai University, Thailand
Ph.D (Geophysics), Uppsala University, Sweden

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PUBLICATION (5 YEARS AGO)

5) Yordkayhun, S., and Na Suwan, J. “A university-developed seismic source for shallow seismic surveys”, 2012; Journal of Applied Geophysics 82, pp.110-118