

## Participation of Institut Teknologi Bandung (ITB) in G-COE Program Kyushu University: NOVEL CARBON RESOURCE SCIENCE

### Sudarto Notosiswoyo

Dean, Faculty of Mining and Petroleum Engineering  
Institut Teknologi Bandung



Institut Teknologi Bandung (ITB) is one of the leading universities in Indonesia. It was founded during the Dutch Administration in 1920, with its name Technische Hogeschool (TH). In 1942 to 1945 become Bandung Kogyo Daigaku, then in 1945 to 1959 as a part of University of Indonesia, Jakarta, as Faculty Mathematic and Natural Sciences and Faculty Engineering. In 1959 become Institut Teknologi Bandung up to now.

At present, Institut Teknologi Bandung has twelve Undergraduate Faculties and Schools and Post Graduate School. The student body is ca 20,000 students, ca 16,000 of them are undergraduate students, 3,500 master students, and 500 doctoral students. The total faculty member is 1,022 with 73% of them hold doctoral degree.

Most of the faculty member has research activities in their field, which spread up from science, engineering, and arts. Quite large number of research topics which held in Institut Teknologi Bandung are related, directly or indirectly, to carbon resources



Fig. 1 A process to perform "direct shear test" for big rock specimen at Adaro Coal Mine, South Kalimantan.

production/ beneficiation and environmental protection.

Some of the research topics in ITB (2009) are:

- Coal production/benefication: slope stability, blasting, reusing lubricant oil for blasting, coal transportation, coal-water mixture, coal liquifaction
- New/renewable energy: biodiesel, geothermal, solar, ocean, wind, nuclear, and domestic waste power plant.
- Environmental engineering: solid waste recycle, polluted ground and surface water remediation, domestic waste power plant.

The activities of G-COE Program Kyushu University, such as symposium, discussion, and joint researches are very useful for carbon resource sciences. Researchers may discuss the topics, communicate, and contribute their research in symposium and/or publication; then they can improve their research quality and activities. The G-COE Program in Novel Carbon Resource Sciences will lead the researcher from the region to improve the quality of their contribution to clean carbon technology for better environment.

Institut Teknologi Bandung and Indonesia would also get the benefit of the program, and Institut Teknologi Bandung already participate the program from the beginning in October 2008, when the program been declared in Fukuoka, Japan. Institut Teknologi Bandung was the host for the 2nd International Symposium of Novel Carbon Resource Sciences at ITB Campus, Bandung in March 2009.

Hopefully, through the G-COE Program, collaboration between universities and countries in the region will become more intensive and give important contributions to solve the need of energy and environmental problems.