Geophysical Research Abstracts, Vol. 8, 10688, 2006
SRef-ID: 1607-7962/gra/EGU06-A-10688

From spacecraft technology to modelling system Earth - a new international M.Sc. course combining Munich space expertise

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Satellite techniques gain more and more in importance for Earth System Science. Design, development and analysis of such missions requires knowledge in a broad spectra of fields, ranging from modelling components of the Earth system up to the behaviour of the satellite. The classical educational programs (such as geophysics, geodesy, mechanical or electrical engineering) which lead to careers, e.g., in space agencies, research institutes or industry, cover only part of this spectra.

In order to bridge the gap between the different programs, the Munich universities have decided to set up a common international M.Sc. course in "Earth Oriented Space Science and Technology (ESPACE)". ESPACE connects know-how in spacecraft technology and orbit mechanics with applications in Earth System Science, Remote Sensing and Navigation. It takes advantage of the Munich situation with its unique concentration of expertise in 3 universities, research institutions (like the German Aerospace Center, DLR) and space industry. The intention of ESPACE is to set up an educational network in the field of Earth Oriented Space Research, connecting the M.Sc. course with a doctoral program and the research work of the involved institutions. In the future, connections to similar programs across Europe are considered.