LUNDS TEKNISKA HÖGSKOLA
Lunds universitet

Project Nanoengineering

- a project course with an entrepreneurial approach.

Every spring semester, our third-year students in the master's engineering program of technical nanoscience study a project course, where they will create value based on a novel idea. The rationale is that after 2.5 years they have acquired sufficient engineering knowledge so they can develop such an idea into a product / prototype in a real-life situation. The idea can come from the students themselves or from an external source, such as a research lab or company.

Students initially receive a number of lectures and exercises on innovations, patents, budgets, market analysis, business plans, project management and group processes, etc. that they may apply and relate to during their own project work. This work takes place in groups of about 4-6 students and ends with a joint seminar at the end of the spring semester. In some cases, the projects have resulted in a new company or the starting point for various R&D projects. The projects are to be supervised by a supervisor familiar with the area of the project and linked to Lund University or a company.

We now want to encourage you who have an idea / task / project and who would like a group of students working on this, to contact us with your project proposal! Over the years, we have had very different projects, for example:

- ✓ Low density nanofiber based materials
- ✓ An app-based fertility status system
- ✓ Organic synthesis of synthetic antibiotics
- ✓ Nanoparticle generator for medical diagnostics
- ✓ Development of nanofiber membranes for air filtration
- ✓ Voice analysis as an alcohol-meter
- ✓ pH-based epileptic seizure detector
- ✓ Restriction of biofilm on boats
- ✓ 3D monitors
- ✓ Moisture-absorbing mouth guard
- ✓ + a number of company-located projects with different specializations…

If you have a project idea, describe it briefly in the style of the "dummie project" below and send it to one of us (deadline 10/1). All project ideas will be presented to the students the first week of the course - if you want to come and present it yourself at the end of January, which we hope (!) you are of course warmly welcome.

Senior supervisors: Lilla My (EIT) and O. B. Govad (FTF)

A generator for exothermic nanomagnets

Exothermic nanomagnets have applications for dichroic batteries, autoimmune quantum tennis, as well as in olfactory research.

A generator for exothermic nanomagnets has been developed at LTH, which is small and user friendly.

How should it be constructed for commercialization? Who are the users and which are their needs? What specifications do we need to obtain? Regulations? Pricing?

The detailed content of the project will be decided together with the group, ideally with the goal of writing a business plan. A confidentialy and IP transfer agreement needs to be signed.

LUND UNIVERSITY

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