Invitation to PhD course in ***'Sustainability in Engineering Product Development (SEPD)' 5 hec*** as part of the course suite Engineering Product Development 20 hec

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A product development PhD Course suite of 20 higher education credits (hec) in total, including four independent modules of 5 hec each is offered for interested PhD students:

(1) A Critical Review of the Product Development Process (PDP), 5 hec
(2) Sustainability in Engineering Product Development (SEPD), 5 hec
(3) Modeling, Simulation and Optimization (MSO), 5 hec
(4) Engineering Innovation and Management (EIM), 5 hec

This suite is recommended for PhD candidates in Engineering Product Development and the modules are given for the first time during 2016-2017.

This is an invitation to the second course module and it addresses 'Sustainability in Engineering Product Development (SEPD)', 5 hec. Further details are provided later in this document.

Co-hosting universities and contact persons for the course suite are:

Blekinge Institute of Technology (BTH): *Prof. Tobias Larsson*
Chalmers University of Technology: *Prof. Ola Isaksson*
Jönköping University/Mälardalen University (JU/MDH): *Prof. Glenn Johansson*
Jönköping University (JU): *Prof. Fredrik Elgh*
Technical University of Denmark (DTU): *Prof. Tim McAloone*
Linköping University (LiU): *Prof. Johan Ölvander*
Luleå University of Technology (LTU): *Prof. Anna Öhrwall Rönnbäck*
Norwegian University of Science and Technology (NTNU): *Prof. Martin Steinert*
Royal Institute of Technology (KTH): *Prof. Sofia Ritzén*

Welcome to the PhD Course suite!

Module 2: Sustainability in Engineering Product Development (SEPD), 5 hec

Introduction

Societal and industrial activities call for a need to relate research and practice on Engineering Product Development to the pressing issues of sustainable development. In this course, we will address how various sustainability aspects relate to Engineering Product Development and focus on why, how and when sustainability needs to be integrated and implemented in the product development activities.

Registration

Please register by email at the latest the 13th of February 2017 to one of the examiners:
Professor Glenn Johansson, glenn.johansson@mdh.se
Professor Sofia Ritzén, ritzen@kth.se
Associate professor Sophie Hallstedt, sophie.hallstedt@bth.se

Time and place

The course module is given during March-June 2017 and includes three physical meetings:

Meeting 1: 13 March 10.00-16.00 – Place: KTH, Stockholm
Meeting 2: 11-12 Maj 12.00-12.00 (lunch to lunch) - Place: MDH, Eskilstuna
Meeting 3: 8-9 Juni 12.00-12.00 (lunch to lunch) - Place: BTH, Karlskrona

Fee and expenses

There is no fee for the course, but participants are expected to join all three meetings and cover their own expenses for travel, food, etc.

Contents and course structure

The details of the course will be laid down during February, but it will include inspirational lectures, literature seminars, own assignments, etc. A number of pressing themes relating to Sustainable Development will be addressed and in seminars and writing these will be reflected upon in relation to their criticality for society and connection to the field of Engineering Design and Product Development. The connection to each PhD students own research will also be addressed.

Planned themes are:

- Socially sustainable development and its assessment in relation to ecological and economic sustainable development;
- Business development, sustainable innovations and Circular Economy;
- EcoDesign and strategies for integrating sustainability aspects in product development.

In addition, the basics of Sustainable Development will be addressed.

At the end of the course participants are expected to write a course paper where they relate their own research to literature on sustainable product development. The paper shall be presented at the third meeting and each participant must also act as "opponent" of another participant's paper.

In brief, the course is structure as follows:

Meeting 1: Course introduction, inspirational lecture, literature discussions, etc.
Meeting 2: Literature seminar, inspirational lecture, etc.
Meeting 3: Presentation/discussion of texts written by the participants, etc.

Please note that the structure and content is preliminary and may be exposed to some minor changes until the course starts. Details will be sent during February to the PhD students that register for the course.

Learning outcomes

Knowledge and understanding

- display knowledge of sustainability in Engineering Product Development and its relevance for manufacturing companies
- be familiar with motives and drivers for sustainability as well as models, methods, tools, and techniques that can be used for sustainability integration

Skills and abilities

- demonstrate skills of presenting and explaining how his/her own research relates to sustainability in Engineering Product Development

Judgement and approach

- demonstrate ability to penetrate and analyse empirical and/or theoretical materials that focuses on sustainability in Engineering Product Development

Literature

Will be announced before the course starts and during the course.