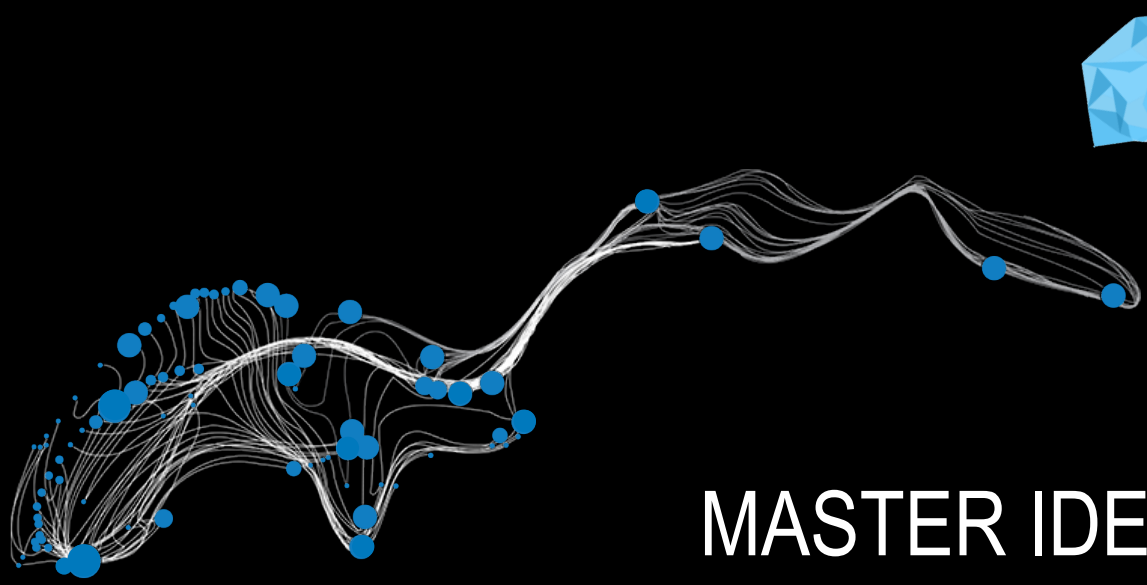
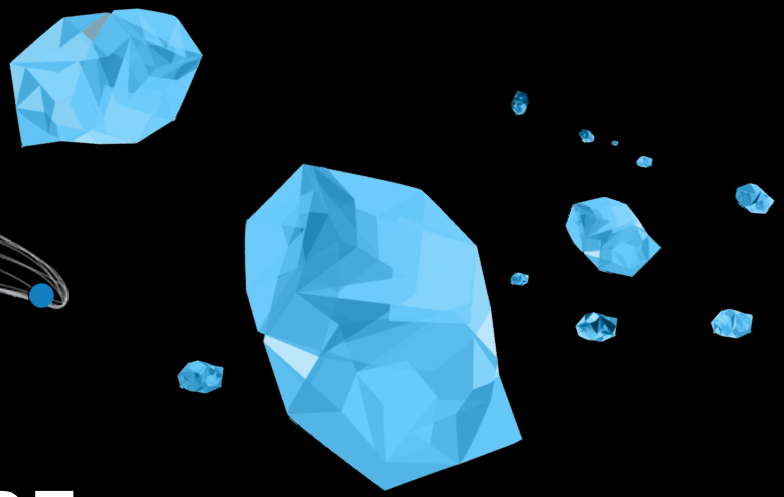
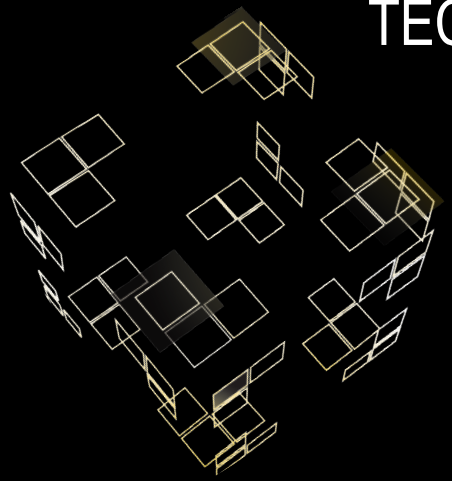
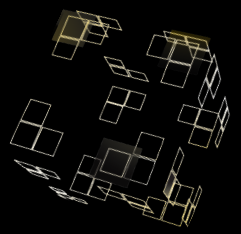


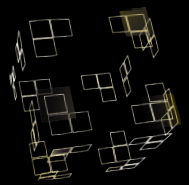


MASTER IDE

INTRODUCING EMERGING TECHNOLOGY DESIGN ETD







prof. dr. ir. E. van der Heide

UNIVERSITY
OF TWENTE.

GENERAL INFORMATION

- 3 Years Bachelor IDE
- 2 Years Master IDE

- 350 bachelor / 200 master students

UNIVERSITY OF TWENTE.

MASTER IDE

BACHELOR

- Skills and knowledge
- Scientific
- Broad spectrum
- Clearly defined

MASTER

- Knowledge and research
- Scientific depth
- Specialized field
- Many options

UNIVERSITY OF TWENTE.

HOW TO CHOOSE YOUR INDIVIDUAL STUDY PROGRAMME?

MOPD
DR.IR. D. LUTTERS
(ERIC)

ETD
PROF.DR.IR. E. VAN DER HEIDE
(EMILE)

HTR
DR.IR. W. EGGINK (WOUTER)

Tracks

- Management of Product Development (MOPD)
- Emerging Technology Design (ETD)
- Human Technology Relations (HTR)

50% MoPD / 25% HTR / 25% ETD

UNIVERSITY OF TWENTE.

MASTER IDE

DESIGN

HUMAN FACTORS

ENGINEERING

UNIVERSITY OF TWENTE.

EMERGING TECHNOLOGY DESIGN

MASTERTRACK INDUSTRIAL DESIGN ENGINEERING

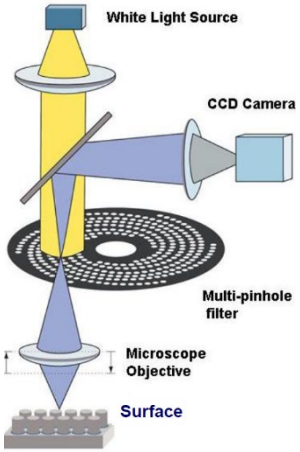
“DESIGN ENGINEERING SOLUTIONS FROM EMERGING TECHNOLOGY”

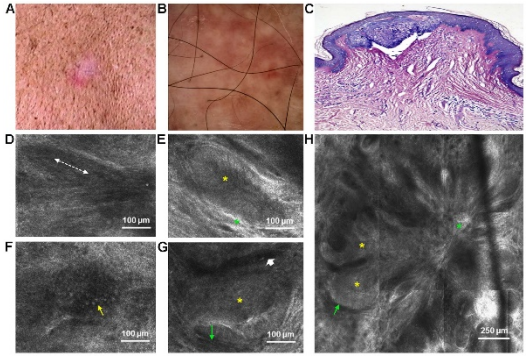
Keywords: design, research, engineering technology

EMERGING TECHNOLOGY DESIGN

CONTEXT

•10.2217/mmt-2018-0001



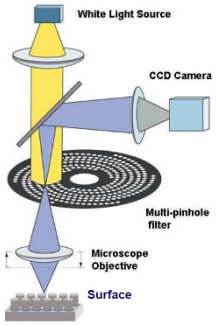


doi.org/10.3892/ol.2016.4354

new technology → made available for society

EMERGING TECHNOLOGY DESIGN

CONTEXT



dermnetnz.org

You like to:

- understand new technologies → make them available for society
- convert recently published theories/technologies to new products or implement in existing products
- integrate technology and design
- In short: be the bridge between research environments and market/industry

MASTER IDE

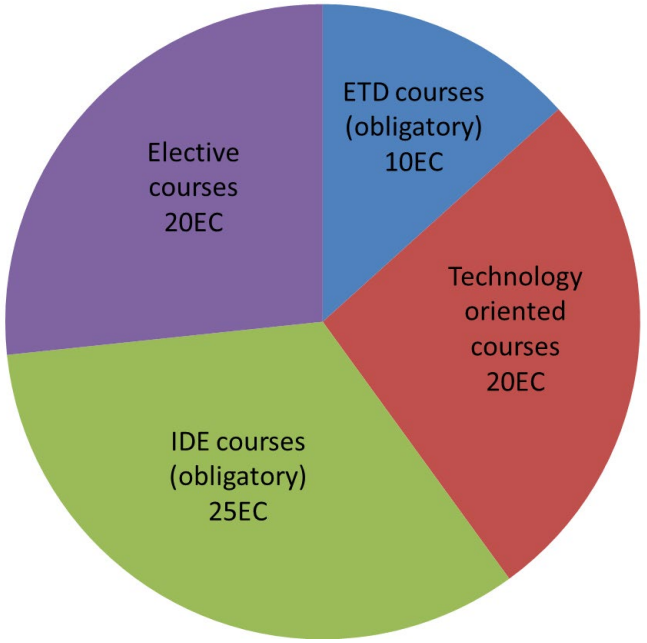
Course 1 5EC Course 2 5EC Course 3 5EC	Course 4 5EC Course 5 5EC Course 6 5EC	Course 7 5EC Course 8 5EC Course 9 5EC	Course 10 5EC Course 11 5EC Course 12 5EC
Course 13 5EC Course 14 5EC Course 15 5EC	MSc. Assignment 45 EC (INTERNAL OR EXTERNAL)		

UNIVERSITY OF TWENTE.

INDIVIDUAL STUDY PROGRAMME ETD

Courses (75 EC, equals 5 quarters)

- ETD courses (mandatory) (10 EC)
- Technology oriented courses (20 EC)
- IDE courses (25 EC)
- Elective courses (20 EC)



Master Assignment (45 EC, or 3 quarters)

ISP

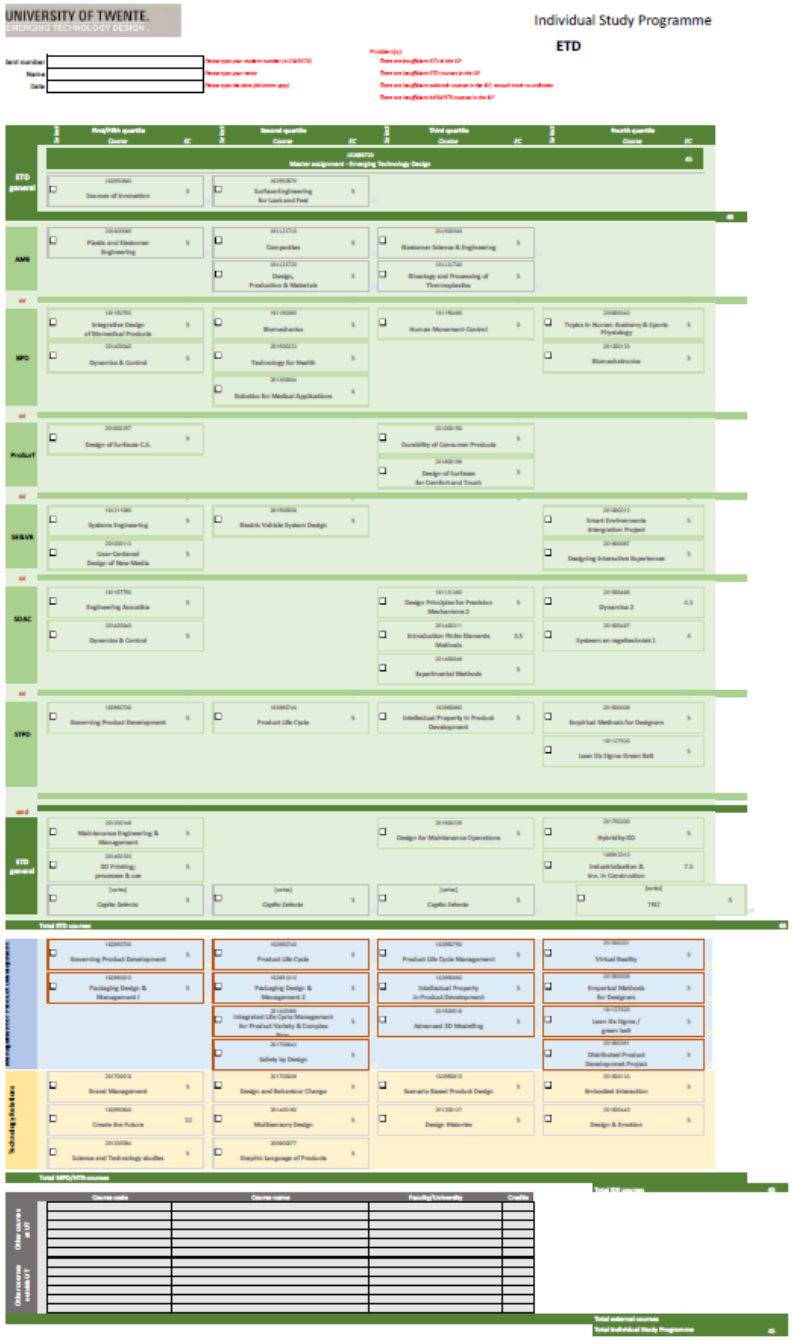
PRE-DEFINED PROGRAMMES

- Enroll as IDE ETD
- Enroll to canvas site:

IDE Master track Emerging Technology Design

- Latest version of the ISP

can be found at the canvas site



ONE TRACK – SIX PROGRAMMES

CURRENT FOCUS

- Advanced materials engineering
- Biomedical product design
- Product and Surfaces
- Smart Environments & Virtual Reality
- Structural Dynamics, Acoustics & Control
- Sustainable Technology for Product Development

ONE TRACK – SIX PROGRAMMES

CONTACT PERSONS

Dr. Bor	Ir. Hekman	Dr. Matthews	Dr Bonnema	Prof. Rosic	Ir. Toxopeus
AME	BPD	ProSurf	SE&VR	‘SDA&C’	STfPD

ADVANCED MATERIALS ENGINEERING

THE DESIGN AND DEVELOPMENT OF AN INNOVATIVE DISCONTINUOUS AND CONTINUOUS REINFORCED HYBRID COMPOSITE MATERIAL

Ackelien Hageman

How to develop a near-net-shape material leading to a better formable laminate sheet using quick and easy processing methods

BIOMEDICAL PRODUCT DESIGN

THE MORGAN, NEXT LEVEL ORGAN PERFUSION

Frank Timmerhuis

transport system for transplant organs that enables perfusion of organs

cooperation with Dutch transplant centres

perfusing the organ during transport conditions positively affects the quality of the organ

PRODUCT AND SURFACES

DESIGN AND FABRICATION OF A BIOMIMETIC LIFTING AID

Tjitte de Wolff / DDW 2017

The lifting aid anchors itself on rough surfaces and can resist great transverse forces - just like an octopus.

SMART ENVIRONMENTS & VIRTUAL REALITY

THE DRIVERS INCHARGE – THE ROLE OF CHARGING INFRASTRUCTURE IN THE DIFFUSION OF ELECTRIC VEHICLES IN NORWAY

Noortje Naeff

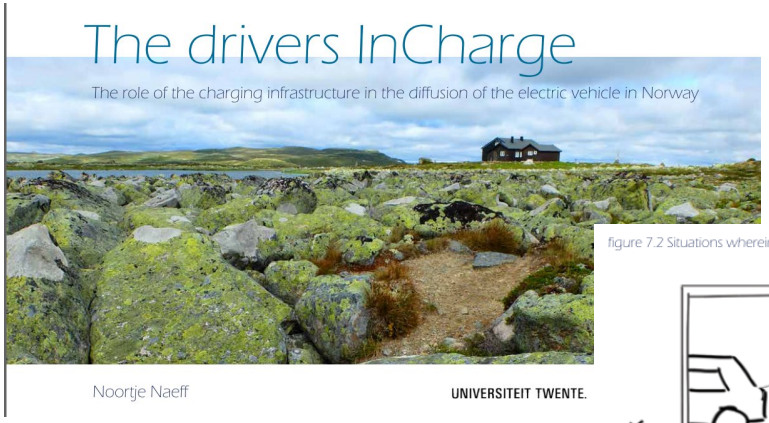
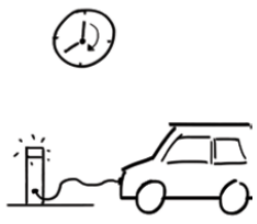


figure 7.2 Situations wherein drivers need information about the charging infrastructure

Planning a trip from A to B. When a journey exceeds the range, the *Norsk Elbilforening* advices to have at least a plan B.

Find the exact location of the charging facility; most chargers are quite anonymous.



Find out what facilities are nearby the charging points, so that waiting time can be enjoyed or spend useful (especially during fast charging).

During a trip: find a charger near to you. Many drivers find it convenient to charge their car, even though they can travel back home without charging.

A charging point is (temporary) out of order. This information could be crucial for drivers to rely on the infrastructure.

You cannot use the planned charging point, because it is in use, out of order et cetera.

A new charging facility is established. This information might be helpful for the driver to extent the electric car usage.

Bonus

Citizens considering to buy a electric vehicle, often explore the travel possibilities on for hand. Is the range of the electric car sufficient for me?

STRUCTURAL DYNAMICS, ACOUSTICS & CONTROL

A SOUND BEAM PRODUCT FOR BANG & OLUFSEN

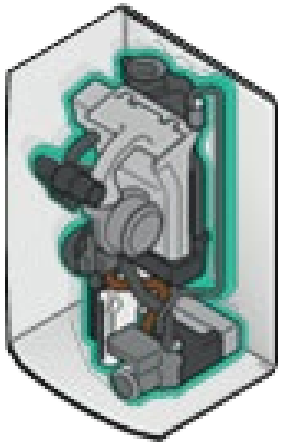
Marianne Bos

Design and development of a product in which the sound panels are placed in a horizontal overhead position

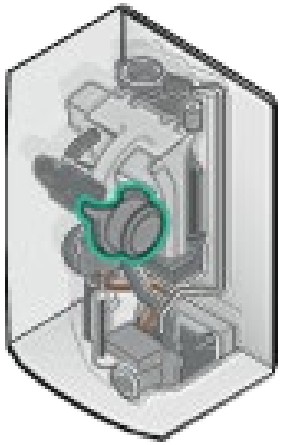
SUSTAINABLE TECHNOLOGY FOR PRODUCT DEVELOPMENT

DEVELOPING A DEDICATED TOOL TO SUPPORT THE DEVELOPMENT OF DOMESTIC BOILERS FOR A CIRCULAR ECONOMY

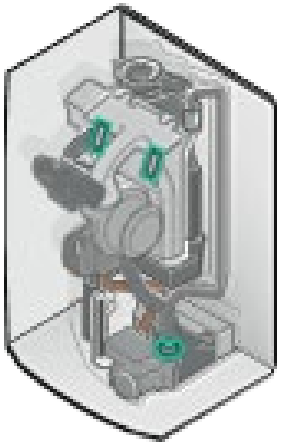
Niek van den Hout



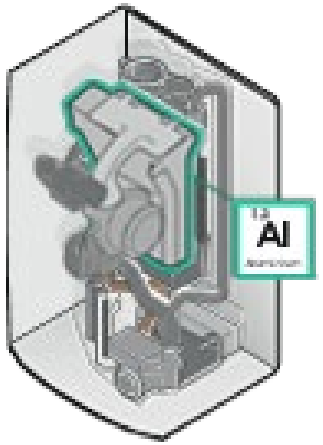
ARCHITECTURE



COMPONENT



CONNECTION



MATERIAL

CONTACT DETAILS

For more information on

- ETD and
- specific aspects of your individual study programme

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HR N112
prof. dr. ir. E. van der Heide
ETD Master Track Coordinator