Workshop on Philosophy and Engineering

The workshop is held at:
Delft University of Technology
School of Technology, Policy and Management (TPM)
Jaffalaan 5
Delft
The Netherlands
Phone: +31 15 2783887

This booklet contains the program and relevant maps to get around
29 October 2007

08.00 – 08.45  Registration

08:45 – 09:00  Welcome by Taft Broome, followed by introduction to the workshop by Ibo van de Poel (room A)

09:00 – 10:00 Natasha McCarthy (Royal Academy of Engineering), Policy Advisor, Engineering Policy (with discussion by Peter Kroes, TU Delft, co-author of Between Science and Technology and Technological Development and Science in the Industrial Age). Title: A world of things, not facts (room A)

10:00 – 10:30  Coffee break

10:30 – 12:00 Parallel session Ethics: Ethics in Design I (room A) Chair: Aarne Vessilind
1. Robison, Wade: Design problems and ethics
2. Driessen, Clemens: Which Wastewater, Whose Risks?
3. Børsen, Tom: Developing ethics competencies among science students at the University of Copenhagen

10:30 – 12:00 Parallel session Philosophy (room 5E) Chair: Carl Mitcham
1. Pitt, Joe, Philosophy: Engineering, and the Sciences
2. Pirtle, Zach: The Philosophy of Science and the Epistemology of Engineering
3. Doridot, Fernand: Towards an “engineered epistemology” ?
10:30 – 12:00 Parallel session Reflection (room A1.270)
   Chair: Billy Koen
   1. Bedau, M.: The evolution of technology as seen in patent records
   2. Gedge, Dennis: Practical Civil Engineering and Philosophy
   3. Moriarty, Gene: The Focal Engineering Experience

12:00 – 01:30 Lunch

01:30 – 02:30 Special session Engineering meets philosophy (room A)

02:30 – 04:00 Parallel session Ethics: Ethics in Design II (room A)
   Chair: Michael Davis
   1. Asaro, Peter: The Ethics of Designing Autonomous Technologies
   3. Veruggio, G, & Operto, F.: The Debate on RoboEthics

02:30 – 04:00 Parallel session Philosophy (room 5E)
   Chair: Peter Kroes
   1. Vermaas, Pieter: What is the use of Philosophy of Engineering? The case of the analysis of technical functions
   2. de Vries, Marc J.: Engineering science as a 'discipline of the particular': but how particular and how general?
   3. Mitcham, Carl, & Mackey, Robert: Comparing Approaches to the Philosophy of Engineering
02:30 – 04:00  Parallel session Reflection (room A1.270)
   Chair: Dave Goldberg
   1. Fox, Andrew, & Crudington, Andrew: Initiating discussions on the Philosophy of Engineering: some results from the UK

04:00 – 04:30  Cold-drink break

04:30 – 06:00  Walter Vincenti (Stanford University), author of What Engineers Know and How They Know it.
   Title: It Isn’t Rocket Science!': hanging the Public Perception of Engineering
   Format: An Interactive Panel Discussion with Walter Vincenti via Live Video Conference (Palo Alto <-> Delft). (room A)

(07.00  Diner in La Tasca for committee members and invited speakers)
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08.30 Coffee/tea

08:45 – 09:00 Welcome by Dave Goldberg (room A)

09:00 – 10:00 Alastair Gunn (University of Waikato), co-author of Engineering, Ethics, and the Environment. Title: Integrity and the Ethical Responsibility of Engineers (room A)

10:00 – 10:30 Coffee break

10:30 – 12:00 Parallel session Ethics: Teaching Engineer Ethics (room A) Chair: Ibo van de Poel
   1. van der Zwaag, Sybrand, & Kroesen, Otto: Teaching ethics to engineering students: from clean concepts to dirty tricks
   2. Didier, Christelle: Questioning the status and stakes of engineering ethics

10:30 – 12:00 Parallel session Philosophy (room 5E) Chair: Natasha McCarthy
   1. Farber, Darryl, Pietrucha, Martin T., & Lakhtakia, Akhlesh: Systems and Scenarios for a Philosophy of Engineering
   2. Durbin, Paul: Multiple Facets of Philosophy and Engineering
   3. Davis, Michael: Distinguishing Architects from Engineers: A Pilot Study in Differences between Engineers and other Technologists
10:30 – 12:00  Parallel session Reflection *(room A1.270)*
   Chair: Taft Broome
   1.  Fahmi, Marco: Software engineering and the problem of vagueness
   2.  Abbott, R.: Bits don't have error bars
   3.  Moses, Joel: Architecting Engineering Systems: Craft or Science

12:00 – 01:30  Lunch

01:30 – 02:30  **Hans Radder** (Vrije Universiteit Amsterdam), Author of *In and about the World*
   **Title:** Are Technologies Inherently Normative? *(room A)*

02:30 – 04:00  Parallel session Ethics: The Good Engineer *(room A)* Chair: Alastair Gunn
   1.  Consoli, Luca: The intertwining of ethics and methodology in science and engineering: a virtue-ethical approach
   3.  Coeckelbergh, Mark: Imagining worlds: Responsible engineering under conditions of epistemic opacity

02:30 – 04:00  Parallel session Philosophy *(room 5E)*
   Chair: Pieter Vermaas
   1.  Li, Bocong: Philosophy of engineering in China
   2.  Ottens, Maarten: A conceptual mismatch between theory and practice in engineering systems
   3.  Hanks, Craig: On the importance of the Philosophy of Technology for engineers
02:30 – 04:00 Parallel session Reflection (room A1.270)  
Chair: Joel Moses  
1. Spier, Ray: Towards a Philosophy for Tools and their Uses: a way forward in “Dual-Use” situations  
2. Fritzsche, Albrecht: Engineering Determinacy - Technology and the exclusion of the determinate  
3. Bernhard, Jonte: Perspectives on use of artifacts in education: Some contributions from …

04:15 – 05:30 Poster session with cold drinks (room A1.270)

Ethics  
1. Schuurbiers, Daan: Issues to be RAISED: ethical and social considerations in nanotechnology research  
2. Kinderlerer, Julian & Kuan-Ting, Chi: Formulators’ Dilemma: Public Perception, Evidentiary Standards and Distributive Justice in safety design of Nano-cosmetics

Philosophy  
1. Nikitina, Elena: Techno-socialization of a human being  
2. Bao, Ou: Engineering, Culture and Engineering Culture  
4. Wang, Dazhou: The Importance of Engineering to Philosophy

Reflection  
1. Pieters, Kees: A Critique on Critique
2. Fritzsche, Albrecht: The Dialectic of the Good in Heuristic Optimization - An Example from the Automotive Industry
4. Steen, Marc: Human Centred Design

05.30 – 07.00  Reception in Delft’s Old Town Hall

(07.00  Optional dinner in Wokrestaurant Peking, sign up at registration)
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08.30 Coffee/tea

08:45 – 09:00 Welcome by Joel Moses (room A)

09:00 – 10:00 Louis L. Bucciarelli (MIT), author of Designing Engineers and Engineering Philosophy.
Title: Ethics and Engineering Education (room A)

10:00 – 10:30 Coffee break

10:30 – 12:00 Parallel session Ethics: Ethics of Artifacts (room A)
Chair: Jun Fudano
1. Fujimoto, Ryoji: Ethical aspects of technical artifacts
2. Danielson, Peter: A Collaborative Platform for Experiments in Ethics and Technology
3. Evers, Johan, & De Tavernier, Johan: Will nano-enabled diagnostics alter the autonomy of agricultural stakeholders?

10:30 – 12:00 Parallel session Philosophy (room 5E)
Chair: Hans Radder
3. Lavelle, Sylvain: Technology and engineering in context
10:30 – 12:00 Parallel session Reflection (room A1.270)
Chair: Larry Buciarelli
1. Broome, Taft: Metaphysics of engineering
2. Grimson, William, Murphy, Mike, & Coyle, Eugene: Educating engineers for the 21st century

12:00 – 01:30 Lunch (business meeting working group)

01:30 – 02:30 Jun Fudano (Kanazawa Institute of Technology), Director of the Applied Ethics Center for Engineering and Science (AECES).
Title: Japanese Engineers Meet Western Ethics: The Introduction of Engineering Ethics Into Japan and Beyond (room A)

02:30 – 03:30 Follow-up (discussion) (zaal A)

03:30 – 05.00 Drinks Hal TBM
The maximum walking distance between two points indicated on this map is just under a mile.