

Elvin Karana

Assistant Professor
Industrial Design Engineering
Delft University of Technology
Landbergstraat 15 2628CE
Delft, the Netherlands
Tel (w): +31 15 27 85 726
Fax (w): +31 15 27 81 839
Email: e.karana@tudelft.nl

BACKGROUND

Education

PhD (2005-2009) Delft University of Technology (DUT), Industrial Design Engineering

Title: *Meanings of Materials*

Promoters: Prof. Dr. Paul Hekkert, Prof. Dr. Prabhu Kandachar

MSc (2002-2004) Middle East Technical University (METU), Faculty of Architecture, Department of Industrial Design, Turkey (awarded distinction)

Title: *Guidelines for a materials selection source for industrial design*

Supervisor: Prof. Dr. Gulay Hasdogan

BID (1998-2002) Middle East Technical University (METU), Faculty of Architecture, Department of Industrial Design, Ankara, Turkey (awarded distinction, the best graduate)

Work Experience

2011 July- ... Tenure Track Assistant Professor, Design Engineering, DUT, The Netherlands

2013 Sep- 2014 Feb Visiting Assistant Professor, Politecnico di Milano, Chemistry, Materials, Chemical Engineering and School of Design, Italy

2009 July- 2011 July Assistant Professor, Design Engineering, DUT, The Netherlands

2005-2009 PhD Candidate, Design Engineering, DUT, The Netherlands

2003-2005 Research Assistant, Industrial Design, METU, Turkey

2002-2003 Product Designer, Mekan Design Company, Turkey

2000-2004 Product Design Intern, Cilek Furniture, Vestel Electronics, Aselsan Electronics

Honours & Awards

2005-2009: Grant for Doctoral Research Abroad, The Council of Higher Education, Turkey

2007: The Best Paper Award, 1st Kansei Engineering and Emotional Research Conference Japan.

2002: The Best Graduate of Industrial Design, METU, Turkey

1998-2002: High Honour Degree for each academic year, Industrial Design, METU, Turkey

2001: The highest price (2nd) in YKK Fasteners Design Competition

2001: 4th Price (honourable mention) Cimsa Cement Street Furniture Design Competition

PhD / Research Fellow Supervision

Full Time PhDs

Holly Robbins (2014- ...): Material Traces as Media
Bahareh Barati (2013- ...): Designing With Smart Material Interfaces
Ingrid de Pauw (2010- due Nov 2014): Nature Inspired Design Strategies

Visiting PhDs

Patrizia D'Olivio (2014-...) (from Politecnico di Milano): Material Practices of Connectedness
Marieke Gloss (2014- ...) (from Uppsala University): Material Practices of Connectedness
Karen Marie Hasling (2014-...) (from Kolding School of Design): Materials Selection Matrix

Research Fellow

Anouk Zeeuw Van Der Laan (2014- ...): Designing [With] Bio-Based Materials

Involved Courses

2011-... : Advanced Embodiment Design, 21 ECTS* - MSc Compulsory Industrial Design Engineering- Co-Developer, Coordinator, Lecturer
2011- ... : Materials For Design, 3 ECTS - MSc Elective Industrial Design Engineering - Developer, Coordinator, Lecturer
2013- 2014 : Materials Experience, 6 ECTS - MSc Elective Industrial Design Engineering (Politecnico di Milano) - Coordinator, Lecturer
2009- 2011: Project Advanced Products, 9 ECTS - MSc Compulsory Industrial Design Engineering - Coordinator, Design Coach
2008-2011: Bachelor End Project, 15 ECTS - Bachelor Course- Compulsory - Design Coach, Research Expert
2007- 2010: Design & Experience, 7.5 ECTS - Bachelor Course- Compulsory - Design Coach
2007-2009: Research & Design, 7.5 ECTS - Bachelor Course- Compulsory - Research Expert
2009- 2011: Life Cycle Engineering, 9 ECTS - MSc Course- Compulsory - Lecturer

* 1 ECTS (European Credit Transfer System) equals 28 hours of study.

Appearance in Media/ Blogs

Material Stories

<http://materialstories.com/2014/01/06/happy-new-year-happy-new-book/>

Hello Materials Blog

<http://hellomaterialsblog.ddc.dk/contributors/>

<http://hellomaterialsblog.ddc.dk/2012/06/11/a-design-boost-for-natural-fibre-composites/>

<http://hellomaterialsblog.ddc.dk/2014/01/20/materials-experience-fundamentals-of-materials-and-design-a-new-material-book-released/>

MaterialsDesign Blog

<http://www.materialdesign.nl/materials-experience-fundamentals-of-materials-and-design/>

INMATTERIA

<http://www.inmateria.com/2014/01/21/materials-experience-fundamentals-of-materials-and-design-a-new-material-book-released/>

TU Delft Library

<http://www.library.tudelft.nl/en/visitor-info/events/tu-human-library/living-book-elvin-karana/>

TU DELTA

<http://delta.tudelft.nl/article/-made-of-material-library/24387>

<http://www.delta.tudelft.nl/article/materials-library-remains-restricted/27358>

Editorship / Reviewer

Guest Editor in Materials and Design Journal

Special Issue on Emerging Materials Experiences (Due March 2015)

Reviewer (on a regular basis) for the following journals and conferences

Materials & Design Journal (M&D)

Journal of Cleaner Production (JCP)

International Journal of Design (IJD)

Journal of Design Research (JDR)

International Conference on Design & Emotion (D&E)

International Symposium on Tools and Methods of Competitive Engineering (TMCE)

PUBLICATIONS

Book / Book Chapter

Karana E., Pedgley O., Rognoli V., (2013). Materials Experience: Fundamentals of Materials and Design, 1st Ed., Butterworth-Heinemann: Elsevier, UK.

(<http://store.elsevier.com/Materials-Experience/isbn-9780080993768/>)

Karana E., Pedgley O., Rognoli V., (2013). *Introduction to Materials Experience*, In Materials Experience: Fundamentals of Materials and Design, 1st Ed., Editors: E. Karana, O. Pedgley, V. Rognoli, Butterworth-Heinemann: Elsevier, UK.

Rognoli V., and **Karana E.**, (2013). Towards a New Materials Aesthetic Based on Imperfection and Graceful Ageing, In Materials Experience: Fundamentals of Materials and Design, 1st Ed., Editors: E. Karana, O. Pedgley, V. Rognoli, Butterworth-Heinemann: Elsevier, UK.

Hekkert, P. and **Karana E.**, (2013). Designing Material Experience. *Materials Experience: Fundamentals of Materials and Design*, 1st Ed., Editors: E. Karana, O. Pedgley, V. Rognoli, Butterworth-Heinemann: Elsevier, UK.

Karana E. & Van Kesteren, I., (2008). Materials affect: The role of materials in product experience. Design and Emotion Moves, P. Desmet, J. Van Erp, and M.A. Karlsson, Editors. Cambridge Scholars Publishing: UK.

Journals

Karana E., Barati, B., Rognoli V., Zeeuw Van Der Laan, A., (to be submitted). Material Driven Design: A Case for Waste Coffee Grounds. *International Journal of Design*.

Krista, O., **Karana E.**, Soto-Faraco, S. (submitted). Perception of Naturalness in Textiles, *Materials and Design*.

Barati, B., **Karana E.**, Sekulovski, D., Pont, S. (submitted). Designing a Lighting Probe to Improve Textiles, *International Journal of Design*.

Pedgley O., **Karana E.**, Rognoli V., (submitted). Learning Materials in Design. *International Journal of Technology and Design Education*.

Karana E., Pedgley O., Rognoli V., (in press). On Materials Experience. *Design Issues*.

De Pauw, I., **Karana E.**, Kandachar, P.V., Poppelaars, F. (in press), Comparing Biomimicry and Cradle to Cradle with Ecodesign: a Case Study of Student Design Projects, *Journal of Cleaner Production*.

De Pauw, I., **Karana E.**, Kandachar, P.V, (in press), Assessing Sustainability in Nature-Inspired Design, *Journal of Sustainable Engineering*

Karana, E., Nijkamp, N. (2014), Fiberness, reflectiveness and roughness in the characterization of natural and high quality materials, *Journal of Cleaner Production*, 68: 252–260.

Karana, E., (2012), Characterization of 'natural' and 'high-quality' materials to improve perception of bio-plastics, *Journal of Cleaner Production*, 37: 316–325.

Karana, E., Hekkert, P., & Kandachar, P. (2010). A Tool for Meaning Driven Materials Selection. *Materials and Design*, 31: 2932–2941.

Karana, E., Hekkert, P., (2010). User- Material- Product Interrelationships in Attributing Meanings. *International Journal of Design*, 4(3): 43-52.

Karana, E., (2010). How Do Materials Obtain Their Meanings?. *METU Journal of the Faculty of Architecture*, 27(2): 271-285.

Karana, E., Hekkert, P. & Kandachar, P., (2009). Meanings of Materials through Sensorial Properties and Manufacturing Processes. *Materials and Design*, 30: p. 2778–2784

Karana, E., Hekkert, P. & Kandachar, P., (2008). Material considerations in product design: A survey on crucial material aspects used by product designers. *Materials and Design*, 29: p. 1081-1089.

Proceedings

Giaccardi, E., **Karana, E.** (to be submitted). Positioning Materials Experience in HCI. The *ACM Conference on Human Factors in Computing Systems (CHI)*.

Barati, B., **Karana, E.**, Hekkert, P. (in review). Designing With Smart Interface Materials. *The 8th Nordic Conference on Human Computer Interaction (NordICHI)*.

Giaccardi, E., **Karana, E.**, Robbins, H., D'Olivio. (accepted). Growing Traces on Objects of Daily Use: A Product Design Perspective for HCI. *The ACM Conference on Designing Interactive Systems (DIS 2014)*.

De Pauw I., **Karana E.**, Kandachar, P.V. (2013), Cradle to Cradle in Product Development: A Case Study of Closed-Loop Design. *In the Proceedings of the 20th CIRP International Conference on Life Cycle Engineering*; pg. 37-52.

De Pauw I., Kandachar P., **Karana E.**, (2012), Nature-inspired design strategies in sustainable product development: a case-study of student projects, *In the Proceedings of Design 2012, International Conference, Cavtat, Croatia*.

Taekema J., **Karana E.**, (2012), Creating awareness on natural fibre composites in design, *In the Proceedings of Design 2012, International Conference, Cavtat, Croatia*.

Spitas C., Badke-Schaub P., Spitas V., Rajabalinejad M., **Karana E.** (2012), Creating a research environment for the evaluation of design education in embodiment design, *In the Proceedings of Design 2012, International Conference, Cavtat, Croatia*.

Mink S., **Karana E.**, (2012), Ape & Banana: A new user experience for collecting bio-based disposables at festivals, *In the Proceedings of 8th International Conference on Design & Emotion, London, UK*.

Karana, E. (2011). Materials Selection in Design: From Research to Education, *The 1st International Symposium for Design Education Researchers*, Paris, France, CUMULUS ASSOCIATION and DRS.

Rognoli V., **Karana E.** & Pedgley O. (2011), Natural fibre composites in product design: an investigation into material perception and acceptance, *In the proceedings of International Conference on Designing Pleasurable Products and Interfaces (DPPI)*, 22-25 June, Milan

Karana, E., (2010). Meanings of Materials: Findings and Implications. *The International Conference on Tools and Methods in Competitive Engineering (TMCE)*, Ancona, Italy.

De Pauw I., Kandachar P., **Karana E.**, Peck D. & Wever R. (2010) Nature inspired design: Strategies towards sustainability. *ERSCP-EMSU, Delft, the Netherlands*.

Karana, E., (2009). Meaning Driven Materials Selection in Design Education. *The 17th International Conference on Engineering Design (ICED2009)*, Stanford, California.

Karana, E., Hekkert, P & Kandachar, P., (2009). Assessing Material Properties on Sensorial Scales. *International Design Engineering Technical Conferences (ASME/IDETC/CIE)*, San Diego, California.

Karana, E. & Hekkert, P., (2008). Attributing Meanings to Materials. *The 6th International Conference on Design and Emotion*, Hong Kong.

Karana, E., Hekkert, P. & Kandachar, P., (2008). Materials experience: descriptive categories in material appraisals. *The International Conference on Tools and Methods in Competitive Engineering (TMCE)*, Izmir, Turkey.

Karana, E., Van Weelderen, W., & Van Woerden, E., (2007). The Effect of Form on Attributing Meanings to Materials. *ASME International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (ASME/IDETC/CIE)*, Las Vegas, USA.

Karana, E., Hekkert, P. & Kandachar, P., (2007). Sensorial Properties of Materials for Creating Expressive Meanings. *The Kansei Engineering and Emotion Research Conference*, Sapporo, Japan.

Karana, E., (2006). Intangible Characteristics of Materials in Industrial Design. *The 5th International Conference on Design and Emotion*. Goteborg, Sweden: Chalmers University of Technology.

Karana, E. & Kandachar, P., (2006). Effects of New Materials on Industrial Design and Societies: From Industrial Revolution to Concept of Smartness. *Future Design Conference*, Seoul, Korea.

Karana, E. & Kandachar, P., (2006). Smart Surroundings: A New Era for Communication and Information Technologies. *The 1st International CIB Endorsed METU Postgraduate Conference*, Ankara, Turkey.

Karana, E. & Van Kesteren, I., (2006). Material Effects: The role of materials in people's product evaluations. *The 5th International Conference on Design and Emotion*, Goteborg, Sweden.

Karana, E., (2004). Meaning of the Material: A Survey on the Role of *Materials in User's Evaluation of a Design Object*. *The 4th International Conference on Design and Emotion*, Ankara, Turkey.

Language

Turkish (Mother Tongue)

English, Advanced (C1 Speaking, C1 Understanding)

Dutch, Intermediate (B1 Speaking, B2 Understanding)