

## **Asst. Prof. Michael Stefan Bittermann**

### **Personal Information**

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**Address:** İstanbul Teknik Üniversitesi Mimarlık Fakültesi, Taşkışla Kampüsü, Taksim 34437, İstanbul Türkiye

### **International Researcher IDs**

ORCID: 0000-0003-3640-0754

Publons / Web Of Science ResearcherID: F-3015-2019

ScopusID: 15847867100

Yoksis Researcher ID: 113569

### **Education Information**

Doctorate, Technische Universiteit Delft, Architecture, Design Informatics, Netherlands 2005 - 2009

Postgraduate, Technische Universiteit Delft, Architecture, Architecture, Netherlands 2001 - 2003

Undergraduate, Technische Universiteit Delft, Architecture, Architecture, Netherlands 1997 - 2001

### **Foreign Languages**

English, C2 Mastery

### **Research Areas**

Architecture, Building Information, Architectural Design, Engineering and Technology

### **Academic Titles / Tasks**

Associate Professor, Istanbul Technical University, Mimarlık, Mimarlık, 2018 - Continues

Assistant Professor, Maltepe University, Architecture, Architecture, 2014 - 2018

Research Assistant PhD, Technische Universiteit Delft, Architecture, Architecture, 2010 - 2014

### **Academic and Administrative Experience**

### **Courses**

Visual Communication II: Visualization and Perspective, Undergraduate, 2017 - 2018

Applied Statistics, Postgraduate, 2017 - 2018

Computational Cognition, Postgraduate, 2017 - 2018

Statistics for Research and Design, Undergraduate, 2017 - 2018

Building Materials and Components II, Undergraduate, 2016 - 2017

Computational Design, Undergraduate, 2016 - 2017

Design Studio VI, Undergraduate, 2016 - 2017  
 Design Studio V, Undergraduate, 2016 - 2017  
 Design Studio VI, Undergraduate, 2015 - 2016, 2014 - 2015  
 Computational Design, Undergraduate, 2015 - 2016  
 Design Studio V, Undergraduate, 2015 - 2016  
 Architectural Informatics, Undergraduate, 2015 - 2016, 2014 - 2015  
 Architectural Informatics, Undergraduate, 2014 - 2015, 2013 - 2014  
 Design Studio VII, Undergraduate, 2014 - 2015  
 Design Studio VI, Undergraduate, 2013 - 2014  
 Design Project I and Design Project II, Postgraduate, 2014 - 2015, 2013 - 2014

## Advising Theses

Bittermann M. S., Freeform Follows Functions, Postgraduate, D.Smidt(Student), 2014  
 Bittermann M. S., An Inside to Outside Approach: Focussing on Parametric Pattern Generation for Spatial Organization, Satisfying Experiential Demands, Postgraduate, A.Momin(Student), 2013  
 Bittermann M. S., Computational Architecture: Focusing on the Structural and Layout Complexity, Postgraduate, I.Zaratiegui(Student), 2013  
 Bittermann M. S., An Art Museum Hub for Den Haag, Postgraduate, A.Riazibeidokhti(Student), 2013  
 Bittermann M. S., Computational Architecture: Focusing on Perception and Functionality Aspects of Urban Intervention., Postgraduate, E.Varaku(Student), 2013  
 Bittermann M. S., Focusing on Spatial Composition and Influence of Building Envelope on Daylight Aspects in an Art Center, Postgraduate, M.Foolady(Student), 2011  
 Bittermann M. S., Evolutionary Computation and Parametric Pattern Generation for Airport Terminal Design, Postgraduate, I.Chatzikonstantinou(Student), 2011

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Insight into color aesthetics from probabilistic perception modeling**  
 Bittermann M. S.  
 COLOR RESEARCH AND APPLICATION, vol.43, no.4, pp.527-543, 2018 (SCI-Expanded)
- II. **Visual perception in design and robotics**  
 Bittermann M. S., Sariyildiz I. S., Ciftcioglu O.  
 INTEGRATED COMPUTER-AIDED ENGINEERING, pp.73-91, 2007 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Precision evolutionary optimization part II: Implementation and applications.**  
 Bittermann M. S., Akinci T. C., Caglar R.  
 The Journal of Cognitive Systems, no.1, pp.10-18, 2016 (Peer-Reviewed Journal)
- II. **Probabilistic sorting for effective elitism in multi-objective evolutionary algorithms**  
 Seker S. S., Bittermann M. S., Caglar R., Datta R.  
 The Journal of Cognitive Systems, no.1, pp.19-28, 2016 (Peer-Reviewed Journal)
- III. **Note on the Information-Theoretic Aspect of Fuzzy Neural Tree**  
 Ciftcioglu O., Bittermann M. S.  
 The Journal of Cognitive Systems, no.1, pp.37-40, 2016 (Peer-Reviewed Journal)
- IV. **From perceptual towards cognitive robotics in the framework of evolutionary computation**  
 Ciftcioglu O., Bittermann M. S.

International Journal of Factory Automation, Robotics and Soft Computing, pp.165-180, 2009 (Peer-Reviewed Journal)

V. **Visual perception model for architectural design**

Bittermann M. S., Ciftcioglu O.

Journal of Design Research, pp.35-60, 2008 (Scopus)

VI. **Visual perception theory underlying perceptual navigation**

CIFTCIOGLU O., BITTERMANN M. S., SARIYILDIZ S.

INTERNATIONAL JOURNAL OF FACTORY AUTOMATION, ROBOTICS AND SOFT COMPUTING, pp.171-185, 2007 (Peer-Reviewed Journal)

VII. **Multiresolutional fusion of perceptions applied to robot navigation**

Ciftcioglu O., Bittermann M. S., Sariyildiz I. S.

Advanced Computational Intelligence and Intelligent Informatics (JACIII), no.11, pp.688-700, 2007 (Scopus)

## Supported Projects

Bittermann M. S., Project Supported by Higher Education Institutions, Interactive Computational Design, 2018 - 2020

Bittermann M. S., TUBITAK Project, Design by Cognition and Comprehension, 2014 - 2015

Bittermann M. S., Other International Funding Programs, User Centered Energy Reduction, 2012 - 2014

Bittermann M. S., Other International Funding Programs, Energy Neutral Neighborhood Engine - ENNE, 2011 - 2013

Bittermann M. S., Other International Funding Programs, iBuild Green (framework: KIC Innoenergy - Knowledge & Innovation Community), 2010 - 2013

Bittermann M. S., Other International Funding Programs, Neuro-Fuzzy Modeling for Sustainable Housing Design in Rijswijk Zuid, The Netherlands, 2010 - 2011

Bittermann M. S., EU Framework Program Project, Performance Assessment for a Sustainable Urban Expansion in Groningen, The Netherlands, 2009 - 2009

## Activities in Scientific Journals

The Journal of Cognitive Systems, Editor, 2016 - Continues

## Scientific Refereeing

Proc. of IEEE Congress on Evolutionary Computation 2017, Scientific / Professional Book Published by Renowned Publishing Houses, July 2017

Proc. of IEEE World Congress on Computational Intelligence WCCI 2016, Scientific / Professional Book Published by Renowned Publishing Houses, July 2016

Proc. of IEEE Congress on Evolutionary Computation 2015, Scientific / Professional Book Published by Renowned Publishing Houses, June 2015

Advanced Engineering Informatics (Elsevier), SCI Journal, June 2014

Proc. of 31st Int. Conf. on Education and research in Computer Aided Architectural Design in Europe (eCAADe), Scientific / Professional Book Published by Other Publishers, September 2013

March 2012

Proc. 3rd Int. Con. on Innovation in Architecture, Engineering and Construction, Scientific / Professional Book Published by Other Publishers, June 2005

## Scientific Research / Working Group Memberships

Technical Design & Informatics (Technisch Ontwerp & Informatica), Technische Universiteit Delft, Netherlands,

<http://toi.bk.tudelft.nl>, 2005 - 2014

Hyperbody Research Group, Technische Universiteit Delft, Netherlands, [www.hyperbody.nl](http://www.hyperbody.nl), 2001 - 2003

## Metrics

Publication: 67

Citation (WoS): 5

Citation (Scopus): 12

H-Index (WoS): 2

H-Index (Scopus): 2

## Congress and Symposium Activities

Maltepe University International Student Congress - MUISCarch 2017, Panelists, İstanbul, Turkey, 2017

Maltepe University International Student Congress - MUISCarch 2017, Moderator, İstanbul, Turkey, 2017

Maltepe University International Student Congress - MUISCarch 2016, Moderator, İstanbul, Turkey, 2016

Maltepe University International Student Congress - MUISCarch 2014, Moderator, İstanbul, Turkey, 2014

Sayısal Tasarım Sempozyumu (Symp. on Computational Design), Invited Speaker, İzmir, Turkey, 2012

Welcome Symposium for Prof. Dr. M. Braungart at Delft University of Technology, Invited Speaker, Rotterdam, Netherlands, 2011

Decision Support Systems for Sustainable Buildings symposium, Invited Speaker, Rotterdam, Netherlands, 2010

Complexity Theories of Cities have come of Age, Invited Speaker, Rotterdam, Netherlands, 2009

Game Set & Match II - Computer Games, Advanced Geometries and Digital Technologies, Moderator, Rotterdam, Netherlands, 2006

Digifest 2003, Invited Speaker, Toronto, Canada, 2003

## Non Academic Experience

Entwurf Michael Bittermann (own architectural office), Höchberg, Germany

Büro für Architektur und Tragwerksplanung Karl Bittermann, Höchberg, Germany

Bittermann Weiss GmbH, Gerchsheim, Germany

Bittermann Weiss GmbH, Gerchsheim, Germany

ONL, Rotterdam, The Netherlands

1100 Architect, New York, USA

Bittermann Weiss GmbH, Gerchsheim, Germany

Bittermann Weiss GmbH, Gerchsheim, Germany