

**Publications, Presentations, and other activities of Dr. Tuncer [Ören](#) on:  
**Modeling and Simulation Body of Knowledge (MSBOK)**  
and **Comprehensive and Integrative View of M&S (Big Picture)****

updated: 2018-02-03

**Relevant Work:** [M&S BoK web site](#)  
[Taxonomies](#)  
[M&S Dictionary Project](#)  
[SimEthics](#)

Some statistics

	0	1	2	3	4	5	6	7	8	9	total
2000s						2	2	3	3	4	14
2010s	5	5	1		1		2	4+(1)	(1)		18 + (2)
	(In press, in preparation)										32 + (2)

- 2018** **Ören**, T. (2018 – **In Preparation**, Keynote). Powerful Higher-Order Synergies of Cybernetics, Systems Thinking, and Agent-Directed Simulation for Cyber-Physical Systems. In Proceedings of [InterSymp 2018](#) – The 30th International Conference on Systems Research, Informatics and Cybernetics, and The 38th Annual Meeting of the International Institute for Advanced Studies, July 30 – August 3, 2018, Baden-Baden, Germany.
- 2017** **Ören**, T., S. Mittal, U. Durak (2017 – **In Press**). Modeling and Simulation: The Essence and Increasing Importance. Invited Chapter in the book: Modeling and Simulation of Complex Networks (M. A. Niazi, ed.), the IET Book Series on Big Data.
- Mittal, S., U. Durak, T. **Ören** (eds.). (2017). Guide to Simulation-Based Disciplines: Advancing our Computational Future, Springer.
- Ören**, T., S. Mittal, U. Durak (2017). The Evolution of Simulation and its Contributions to Many Disciplines. Chapter 1 of: S. Mittal, U. Durak, T. Ören (eds.), Guide to SimulationBased Disciplines: Advancing our Computational Future, Springer, pp. 3-24.
- Tolk, A. and T. **Ören** (2017 July). The Profession of Modeling and Simulation. (printed and e-version at Wiley).
- Durak, U., T. **Ören**, and A. Tolk (2017). An Index to the Body of Knowledge of Simulation Systems Engineering (Chapter 2 of: Tolk, A. and T. Ören (eds.) (2017). The Profession of Modeling and Simulation. Wiley.
- 2016** Durak, U. and T. **Ören** (2016). [Towards an Ontology for Simulation Systems Engineering](#). Proceedings of the SpringSim’16, Umut Durak and Murat Günel, (eds.), April 3-6, 2016, Pasadena, CA, (SCS – The Society for Modeling and Simulation International), San Diego, CA, pp. 167-170.

- Ören, T.I. (2016). Opening Panel at SIMULTECH'16: "Increasing importance of simulation and rise of simulation-based disciplines." SCS Newsletter, September 2016.
- 2014** Ören, T.I. (2014-Invited paper). [The Richness of Modeling and Simulation and an Index of its Body of Knowledge](#). (A revised and extended version of the keynote presentation at SIMULTECH'12, Rome, Italy, July 28-31, 2012). In: M.S. Obaidat, J. Filipe, J. Kacprzyk and N. Pina (eds) [Simulation and Modeling Methodologies, Technologies and Applications](#), Advances in Intelligent Systems and Computing, Vol. 256, Springer, pp. 3-24. ([video](#))
- 2012** Ören, T.I. (2012-Invited Keynote Paper). [The Richness of Modeling and Simulation and its Body of Knowledge](#). Proceedings of SIMULTECH 2012, 2nd International Conference on Simulation and Modeling Methodologies, Technologies and Applications. Rome, Italy, July 28-31, 2012. ([presentation](#))
- 2011** Ören, T.I. (2011). [A Basis for a Modeling and Simulation Body of Knowledge Index: Professionalism, Stakeholders, Big Picture, and Other BoKs](#). SCS M&S Magazine, 2:1 (Jan.), pp. 40-48.
- Ören, T.I. (2011). [The Many Facets of Simulation through a Collection of about 100 Definitions](#). SCS M&S Magazine, 2:2 (April), pp. 82-92.
- Ören, T.I. (2011). [A Critical Review of Definitions and About 400 Types of Modeling and Simulation](#). SCS M&S Magazine, 2:3 (July), pp. 142-151.
- 2011 September 7-15, Beijing, China  
Beijing University of Aeronautics and Astronautics; (aka) Beihang University  
School of Automation Science & Electrical Engineering  
**Invited seminar:**  
- [Modeling and Simulation: Big Picture and Body of Knowledge](#)
- 2011 September 16-22, Changsha, China  
National University of Defense Technology, System Simulation Lab  
**Invited seminar:**  
- [Modeling and Simulation: Big Picture and Body of Knowledge](#)
- 2010** Ören, T.I. (2010-Invited paper for the inaugural issue). [Simulation and Reality: The Big Picture](#). [International Journal of Modeling, Simulation, and Scientific Computing](#) (of the Chinese Association for System Simulation - CASS) by the World Scientific Publishing Co. China, Vol. 1, No. 1, 1-25.  
DOI: <http://dx.doi.org/10.1142/S1793962310000079>
- Lacy, L.W., Gross, D.C., Ören, T., and B. Waite (2010). A Realistic Roadmap for Developing a Modeling and Simulation [Body of Knowledge Index](#). Proceedings of SISO (Simulation Interoperability Standards Organization) Fall SIW (Simulation Interoperability Workshop) Conference, Orlando, FL, September 20-24, 2010.
- Ören, T.I. and B. Waite (2010). [Modeling and Simulation Body of Knowledge Index: An Invitation for the Final Phases of its Preparation](#). SCS M&S Magazine, Vol. 1,

issue 4 (October).

2010 July 11-14, Ottawa, Ontario, Canada

**Co-organizer** (with Mr. Bill Waite) of a [workshop on M&S Body of Knowledge](#) within SCSC 2010 - Summer Computer Simulation Conference 2010 (Part of SummerSim'10 - Summer Simulation Multiconference of [SCS](#) which is part of ISMC'10 - 2010 International Simulation Multiconference)

2010 September 21-October 8, Savona, Italy

DIPTeM, University of Genoa, Savona, Italy, **Visiting Professor**

**Invited talk** at SIREN: M&S & Interoperability (September 27, 2010):

"[Simulation: The Big Picture](#) - A Comprehensive and Integrative View"

**Invited talk** at SIREN: M&S for Industrial Plant Engineering (October 6, 2010):

"[Simulation: The Big Picture](#) - A Comprehensive and Integrative View"

**2009** Ören, T.I. (2009). [Modeling and Simulation: A Comprehensive and Integrative View](#).

In L. Yilmaz and T.I. Ören (eds.). Agent-Directed Simulation and Systems Engineering. Wiley Series in Systems Engineering and Management, Wiley-Berlin, Germany, pp. 3-36.

Ören, T.I. (2009). [Uses of Simulation](#). Chapter 7 in: Principles of Modeling and Simulation: A Multidisciplinary Approach, by. John A. Sokolowski and Catherine M. Banks (eds.) (All Chapters by Invited Contributors). John Wiley and Sons, Inc. New Jersey. pp. 153-179

2009 March 4 and 11

Introductory Webinars:

Modeling & Simulation Body-of-Knowledge Index (M&S BOK Index)  
(Bill Waite and Tuncer Ören) [slides](#) (9.69 MB)

(from the M&S Body-of-Knowledge: [BoK Sharepoint site](#))

2009 July 13-16, Istanbul, Turkey

ISMC'09 - 2009 International Simulation Multiconference

Keynote Speech: Simulation and Reality: The Big Picture and Challenges  
([Presentation](#))

Full article: Ören, T.I. (2010). Simulation and Reality: The Big Picture. (Invited paper for the inaugural issue) International Journal of Modeling, Simulation, and Scientific Computing (of the Chinese Association for System Simulation - CASS) by the World Scientific Publishing Co. China.

**2008** 2008 October 4 - October 10, Ankara, Turkey

Middle East Technical University, Ankara, Turkey; ODTÜ-TSK

MODSIMMER [Modeling and Simulation Research and Development Center](#)

A series of invited research lectures (Ankara Lectures - lectures are in Turkish):

Lecture 1 - Modeling and simulation: A comprehensive view and the body of knowledge

(Modelleme ve benzetim: Geniş kapsamlı bir bakış ve bilgi varlığı)

Lecture 2 - Necessity of the synergy of systems engineering and modeling and simulation of complex simulation studies

(Karmaşık benzetim çalışmaları için sistem mühendisliği ile

modelleme ve benzetimin sinerjisine gereksinim)

Lecture 4 - Growing scope and importance of modeling and simulation and necessity of ethics in simulation studies (Modelleme ve benzetimin kapsam ve önemindeki gelişmeler ve benzetim çalışmalarında etik gereksinimler)

**2007** Ören, T.I. (2007). [The Importance of a Comprehensive and Integrative View of Modeling and Simulation](#). Proceedings of the 2007 Summer Computer Simulation Conference July 15-18, 2007, San Diego, CA. ([presentation](#))

2007 April 19, Norfolk, Virginia

2007 Capstone Conference - 2007 Modeling, Simulation, & Gaming Student Capstone Conference. Hosted by: The Virginia Modeling, Analysis and Simulation Center ([VMASC](#)) of [Old Dominion University](#)  
A **judge** in the Discipline of **M&S Body of Knowledge** Track

2007 November 26-29, Orlando, Florida

I/ITSEC - Interservice/Industry Training, Simulation Conference  
**Tutorial** (with Bill Waite): [Need for and Structure of an M&S Body of Knowledge](#)

**2006** Ören, T.I. (2006). [Body of Knowledge of Modeling and Simulation \(M&SBOK\): Pragmatic Aspects](#). Proc. [EMSS 2006](#) - 2nd European Modeling and Simulation Symposium, 2006 October 4-6, Barcelona, Spain. ([presentation](#))

2006 September 22 - October 23, Barcelona, Spain

University of Barcelona (Universitat Autònoma de Barcelona)  
A series of [invited doctoral lectures](#) (Barcelona Lectures):

[Lecture 1](#) - Modeling and Simulation (M&S): A Comprehensive View and an Introduction to the Body of Knowledge

[Lecture 2](#) - Synergy of Systems Engineering and Modeling and Simulation

**2005** Ören, T.I. (2005 – Invited Keynote Article). [Maturing Phase of the Modeling and Simulation Discipline](#). In: Proceedings of: ASC - Asian Simulation Conference 2005 (The Sixth International Conference on System Simulation and Scientific Computing (ICSC'2005), Beijing, P.R. China, pp. 72-85. ([presentation](#)).

Ören, T.I. (2005 - Invited Tutorial). [Toward the Body of Knowledge of Modeling and Simulation](#) (M&SBOK), In: Proc. of I/ITSEC (Interservice/Industry Training, Simulation Conference). Nov. 28 - Dec. 1, Orlando, Florida; paper 2025, pp. 1-19. ([presentation](#))