Dr. Olga Boric-Lubecke, Professor

Education:

Ph.D. (June 1995), Electrical Engineering
University of California, Los Angeles, CA

M.S. (June 1990), Electrical Engineering
California Institute of Technology, Pasadena, CA

B.S.E.E. (May 1989), Electrical Engineering
University of Belgrade, Yugoslavia

Academic Experience:

University of Hawaii at Manoa *2003- Present*
Electrical Engineering Department, full time
Professor *2012- Present*
Associate Professor *2003- 2012*

Helsinki University of Technology, Espoo, Finland *1991-1992*
Electrical Engineering Department, full time
Visiting Researcher

Non-Academic Experience:

Adnoviv, LLC. *2013-Present*
Co-Founder and President, part time

Kai Sensors, Inc. (Kai Medical) *2007-2009*
Co-Founder and Chief Scientific Advisor, part time

Senscorp Technologies, Inc. *2006-2007*
Co-Founder and CEO, part time

Bell Laboratories/Lucent Technologies *1998– 2002*
Wireless Research Laboratory
Member of Technical Staff, full time

The Institute of Physical and Chemical Research, Sendai, Japan
Photodynamics Research Center *1996 - 1998*
Visiting Research Associate, full time

NASA Jet Propulsion Laboratory, Pasadena, CA *1995 - 1996*
Observational Systems Division
Resident Research Associate, full time

Institute of Microwave Techniques and Electronics, Belgrade, Yugoslavia
Microwave Research Laboratory *1990 - 1991*
Research Associate, full time

Certifications: CITI certification, "Conducting Biomedical Research", 2010-present.

Professional Affiliations:

IEEE Senior Member 2001-present, Member 1995-2001, Student Member, 1988-1995.

SWE Member, 2007-present.

Honors and Awards:

SWE Outstanding Collegiate Chapter, Silver Level, 2008, 2009, 2012, 2013.

Achievement Reward for College Scientist (ARCS Award) for PhD student Ivy Lo, 2008.

2008 Frost and Sullivan Technology Innovation of the Year.

2007 TechConnect Emerging Technology Award.

Student Paper Competition Finalist, Co-author, IEEE-RWS-2006.

Student Paper Competition First Prize, advisor, IEEE IMS-2003, June 2003.

Student Paper Competition Third Prize, advisor, IEEE EMBS-2001, October 2001.

Bell Labs Science Grant Program Award for Excellence in Mentoring, June 2001.

Student Paper Competition Honorable Mention, advisor, IEEE IMS-2001, June 2001.

Japan International Science&Technology Exchange Center Award, 1996-1997.

NRC Research Associateship Award, NASA Jet Propulsion Laboratory, 1995-1996.

Distinguished Service Award for establishing the IEEE-MTT chapter in Belgrade, Yugoslavia, 1994.

Institutional and Professional Service (last five years):

IEEE Microwave and Wireless Components Letters Associate Editor, 2011-present.

TPRC Member, IEEE-MTT International Microwave Symposium, 2013-present.

IEEE EMBC Associate Editor, 2011-present.

TC (MTT-26) Member, 2011- present.

Workshop Organizer, IEEE IMS2011, 2014.

TC (MTT-20) Member, 2003-present.

TC Co-Chair, IEEE RWS, 2009, 2010.

Society of Women Engineers Faculty Advisor, 2007- 2014, Counselor 2014-present.

Recruiting Committee Chair, 2010-2011, Member 2012-2013.

Graduate Program Committee, 2010-present.
Departmental Personnel Committee, 2007-2009, 2012-present.

Selected Principle Publications (last five years: 19 journal, 29 conference, one book chapter, and two books under contract)

1. E. Shahhaidar, B. Padasdao, R. Romine, C. Stickley, and O. Boric-Lubecke, "Electromagnetic Respiratory Effort Harvester: Human Testing and Metabolic Cost Analysis," *IEEE Journal of Biomedical Health and Informatics*, 2014, available online.
2. M. Zakrzewski, A. Singh, E. Yavari, X. Gao, O. Boric-Lubecke, and K. Palovuori, "Quadrature Imbalance Compensation with Ellipse Fitting Methods for Microwave Radar Physiological Sensing," *IEEE Trans. on Microwave Theory Tech.,* vol.62, no.6, pp.1400-1408, June 2014.
3. B. Padasdao, E. Shahhaidar, C. Stickley, and O. Boric-Lubecke, "Electromagnetic Biosensing of Respiratory Rate," *IEEE Sensors Journal*, vol. 13, no. 11, pp. 4204-4211, Nov. 2013.
4. C. Li, V**.** M. Lubecke, O. Boric-Lubecke, and J. Lin, "A Review on Recent Advances in Doppler Radar Sensors for Noncontact Healthcare Monitoring," *IEEE Trans. on Microwave Theory Tech.,* Vol. 61, Issue: 5, Part: 2, pp. 2046- 2060, 2013.
5. A. Singh, X. Gao, E. Yavari, M. Zakrewski, X. Cao, V. M. Lubecke, and O. Boric-Lubecke, "Data-Based Quadrature Imbalance Compensation For a CW Doppler Radar System," *IEEE Trans. on Microwave Theory Tech.,* Vol. 61, No. 4, pp 1718-1724, 2013.
6. W. Massagram, N. Hafner, V. Lubecke, and O. Boric-Lubecke, "Tidal Volume Measurement through Non-Contact Doppler Radar with DC Reconstruction," *IEEE Sensors Journal*, Vol. 13, No. 9, pp. 3397 – 3404, 2013.
7. I. Mostafanezhad, E. Yavari, O. Boric-Lubecke, V. Lubecke, and D. Mandic "Cancellation of Unwanted Doppler Radar Motion Using Empirical Mode Decomposition," Vol. 13, No. 5, pp. 1897- 1904, *IEEE Sensors Journal*, 2013.
8. J. Kiriazi, O. Boric-Lubecke, and V. M. Lubecke, "Dual-Frequency Assessment of Cardiopulmonary Effective RCS and Displacement," *IEEE Sensors Journal*, pp. 574-58 2, Vol. 12, No. 3, March 2012.
9. I. Mostafanezhad and O. Boric-Lubecke, "An RF-Based Analog Linear Demodulator," *IEEE Microwave and Wireless Component Letters*, pp. 392-394, Vol. 21, No. 7, July 2011.
10. W. Massagram, N. Hafner, M. Chen, L. Macchiarulo, O. Boric-Lubecke, and V. Lubecke, "Digital HRV Parameter Monitoring and Assessment ASIC," *IEEE Transactions on Biomedical Circuits and Systems,* Vol. 4, No. 1, pp. 19-26, February 2010.
11. O. Boric-Lubecke, V. M. Lubecke, E. Yavari, X. Gao, "E-Healthcare: Remote Monitoring, Privacy, and Security," *IEEE-IMS*, June 2014.
12. E. Yavari, and O. Boric-Lubecke, "Low IF Demodulation for Physiological Pulse Doppler Radar," *IEEE-IMS*, June 2014.
13. O. Boric-Lubecke, E. Yavari, C. Song, X. Gao, V. M. Lubecke "System-on-Chip Based Physiological Doppler Radar: CW and Packet Radar Performance" *IEEE-IWS*, March 2014.
14. B. Padasdao, E. Shahhaidar, and O. Boric-Lubecke, "Measuring Chest Circumference Change during Respiration with an Electromagnetic Biosensor," *IEEE-EMBC*, July 2013.
15. E. Shahhaidar, B. Padasdao, and O. Boric-Lubecke, "Piezoelectric and Electromagnetic Respiratory Effort Energy Harvesters," *IEEE-EMBC*, July 2013.
16. E. Yavari, V. Lubecke, and O. Boric-Lubecke, "Packet Radar Spectrum Recovery for Physiological Signals," *IEEE-EMBC*, July 2013.
17. I. Mostafanezhad, E. Yavari, and O. Boric-Lubecke, "A Low Cost Simple RF Front End Using Time-Domain Multiplexing for Direction of Arrival Estimation of Vital Signs," *IEEE-IMS*, June 2013.