

Todor Cooklev, PhD.

Curriculum Vitae

Personal

1336 Sycamore Hills Parkway, Fort Wayne, IN 46814

Contact e-mail: tcooklev@gmail.com

Cell: 925-984-5283

Citizenship: United States (by naturalization)

Professional experience

2016 –

Professor of Electrical and Computer Engineering

Purdue University Fort Wayne, Indiana

- Research on most aspects of wireless systems, including hardware, signal processing, and software techniques, in particular for software-defined radios.
- Courses:
 - ECE 428 Communication Systems
 - ECE 549 Software-Defined Radio
 - ECE 543 Wireless Communications and Networks

2010 – 2016

ITT Associate Professor of Wireless Communication and Applied Research, Purdue University Fort Wayne

2008 – 2022

Director, Wireless Technology Center *Purdue University Fort Wayne*

2005 – 2008

Consultant, Hitachi America Ltd., San Jose, California

- Voting Member, IEEE 802.11 WG; participated in the work on several 802.11 amendments
- Chair, IEEE 802.11 VTS Study Group; responsible for the proposal and approval to create a Task Group that lead to the IEEE 802.11aa standard

2011 – 2012

Consultant, Hitachi America Ltd., San Jose, California

- Attended meetings of the 3GPP RAN1 standardization committee in Dresden, Germany, Jeju Island, Korea, Prague, Czech Republic, and Qindao, China, 2012.
- Contributed to several documents submitted to 3GPP

2006 – 2008

Consultant, Datamars, Lugano, Switzerland

- Evaluated and produced reports on certain wireless technologies and standards
- Participated in the IEEE 802.15.4f committee

2004 – 2006

Consultant, Leica Geosystems, Switzerland

- IEEE 802.16 (WiMAX) and related technologies

- 2005 – 2007 **Technical Advisory Board Member, Doceotech, San Ramon, CA**
- 2002 – 2008 **Assistant Professor** with tenure (2008), *San Francisco State University*.
- 2000 – 2002 **Member of the Technical Staff, Aware, Inc., Bedford, MA and Lafayette, CA**
- Worked on DSL standards. Participated in the International Telecommunications Union, Study Group 15, Question 4. Chaired the session on coding for DSL at the session in Antwerp, Belgium, June 2000. Participated in the Telecommunications Industry Association T1E1 Committee on DSL
 - Developed advanced coding and decoding methods for DSL
 - Worked on the design of an IEEE 802.11a chipset.
 - Voting member, IEEE 802.15; Co-Founder and First Vice-Chair of IEEE 802.15.3 (High-data rate wireless personal area networking)
- 1998-1999 **Consultant, Quantronix, Framingham, Utah**
- Image processing; developed software for edge detection and wrote a report
- 1996-1997 **Consultant, Communications Research Center, Government of Canada.**
- Designed digital filter banks for communication systems and wrote two technical reports
- 1996-1999 **Senior Engineer, 3Com Corporation**
- Worked on V.90 voice-band modems
 - Implemented data compression and other signal processing algorithms V.42 and V.42bis
 - Worked on the Bluetooth Standard, one of the first contributors to the Host Controller Interface of Bluetooth.
 - Participated in the Bluetooth/IEEE group, which drafted the license agreement between Bluetooth and the IEEE 802, which in turn led to the establishment of the IEEE 802.15 Working Group.

Grants Awarded

1. Office of Naval Research Summer Fellow 2020, Naval Surface Warfare Center Crane
2. National Science Foundation S²ERC I/UCRC, “FPGA implementation of shared-memory middleware”, 2017-2019, PI
3. National Science Foundation S²ERC I/UCRC, “Shared-memory middleware”, 2016-2017, PI
4. City of Fort Wayne, Economic Development Fund, 2013-15, co-PI.
5. Allen County Capital Improvement Board (CIB), 2013-15, co-PI

6. U.S. Defense Advanced Research Projects Agency (DARPA) Small Business Technology Transfer (STTR) Phase I “A flexible and extensible solution to incorporating new RF devices and capabilities into EW/ISR networks, co-PI, August 2013 – February 2014.
7. National Science Foundation S²ERC I/UCRC, “The performance of middleware solutions for SDR”, 2013-2014, PI
8. National Science Foundation S²ERC I/UCRC, “Cognitive decision applications for embedded use,” 2011-2012, PI
9. Visiting Fellowship, National Institute of Communication Technology (Japan), 2011
10. National Science Foundation S²ERC I/UCRC, “Signal processing techniques for multicarrier modulation,” 2009-2011, PI
11. NMDG, Belgium, laboratory grant 2010, PI
12. National Science Foundation, Professional Science Master’s Program, MS in engineering, with concentration in wireless and systems engineering, 2010-2013, Co-PI.
13. Emona Instruments, Sydney, Australia, Laboratory exercises in communications, Principal Investigator, 2008.
14. Lilly Endowment, wireless laboratory grant, 2010, PI.
15. ITT (now Harris) Communications Systems, 2007-2011, PI.
16. State of Indiana, workforce development, 2008-2010, PI
17. National Science Foundation DUE-0442313, “Standards in Education for Product, Process, and Service Design and Development: A Proof-of-Concept Project,” 2005-2008, PI.
18. France Telecom, Paris, France, “New methods for multicarrier modulation for high data-rate wireless systems,” Principal Investigator, 2006.
19. Agilent Technologies/Sun Microsystems, Palo Alto, CA, “Distributed wireless sensor network for environmental monitoring,” Co-principal Investigator, 2005.
20. CSU summer research grant, 2004.
21. U.S. Air-Force Research Laboratory, Wright-Patterson AFB, “Data over voice communications,” Principal Investigator, 2004.

Honors and Awards

- 2012 IEEE Standards Association, “for outstanding contributions to the development of IEEE 802.11aa”
- 2006 Wireless Educator of the Year Award with the citation “In recognition of the pivotal role of educators in preparing tomorrow’s wireless technology leaders”.
- 2005 Duke’s Choice Award, Sun Microsystems, (group award)
- 2003 IEEE Communications Society Oakland/East Bay Chapter Achievement Award, (group award)
- 1999 3Com Inventor Award
- 1995-1997 NATO Science Fellowship
- 1994 IEEE Asia - Pacific Conference on Circuits and Systems Best Paper Award for the paper “Theory of filter banks over finite fields”

Education

- 1995 *Tokyo Institute of Technology, Tokyo, Japan,*
Doctor of Philosophy in Electrical Engineering
- Dissertation: Regular Perfect-Reconstruction Filter Banks and Wavelet Bases
- 1988 *Technical University of Sofia, Bulgaria,* Dipl. Eng. in Electrical Engineering

Professional Activities

Board Membership:

Board of Governors, IEEE Standards Association, 2021-2022

Committee/Editorial Board Membership:

IEEE Communications Standards Magazine, Series Editor, Wireless and Radio Communications, 2017-

Committee Membership:

- IEEE 802.11 Working Group Voting Member, 2001-2003, 2006-present
- IEEE 802.15 Working Group Voting Member 1999-2001
- Chairman, IEEE Standards in Education Committee, 2006 – present
- Member of the Editorial Board, Journal of Networks.
- 2004-2005 Chairman and 2003-2004 Secretary of the Oakland/East Bay Chapter of the IEEE Communication Society.

Program Committee Membership:

- General Chair, Tactical Communications and Interoperability Conference, 2011
- General Chair, Fort Wayne Wireless Summer School 2009 and 2010
- Program Committee Member, Int. Conf. on Wireless Applications and Computing, 2007.
- Program Committee Member, Int. Conference on WLAN, WPAN, and WMAN, Hawaii, Aug. 2007.

- Program Committee Member, Int. Joint Conf. e-Business and Telecommunications, Barcelona, Spain, 2007.
- Program Committee Member, Int. Conf. Wireless Information Networks and Systems, Lisbon, Portugal, 2006.
- Technical Program Committee Member, Int. Conf. Networking and Services, ICNS 2006, Santa Clara, CA.
- Technical Program Committee Member, Advanced Int. Conference on Telecommunications, AICT, Guadeloupe, French Caribbean 2006.
- Program Committee Member, Int. Joint Conf. e-Business and Telecommunications, Reading, UK, 2005.
- Technical Program Committee Member, Int. Conf. Convergent Services and Next-Generation Networks, June 2005, Chicago, IL.
- Technical Program Committee Member, Int. Conference on Service Assurance with Partial and Intermittent Resources, Lisbon, Portugal, July 2005.
- Technical Program Committee Member, Int. Conf. Telecommunications, 2004, Brazil.
- 3rd Int. Workshop on Signal and Image Processing, Manchester, UK, Special session on wavelets in communication systems, signal and image processing, special session co-organizer, Nov. 1996.

Tutorials at International Conferences

- 1) T. Cooklev, "The analog RF-digital interface: the VITA 49 standard and evolution roadmap," First IEEE Next G Summit, Johns Hopkins University, June 14, 2022.
- 2) T. Cooklev, "Open RF-digital interfaces and wireless ontologies," IEEE BlackSeaCom, 4th International Black Sea Conference on Communications and Networking, Varna, Bulgaria, June 2016.
- 3) M. Cummings, T. Cooklev, "Software Defined Radio Technology", Tutorial at the 2008 Symposium System on Chip, Tampere, Finland, Nov. 2008.
- 4) M. Cummings, T. Cooklev, "Software Defined Radio Technology", Tutorial at the IASTED Int. Conference Computer Communications, Palma de Mallorca, Spain, Sept. 2008.
- 5) M. Cummings, T. Cooklev, "Software Defined Radio Technology", Tutorial at the 2007 International Conference on Computer Design, Squaw Creek, CA 2007.
- 6) T. Cooklev, "Wireless communication standards: 802.11, 802.15, and 802.16," Int. Conference Telecommunications, Fortaleza, Brazil, Aug. 2004, tutorial.
- 7) T. Cooklev, "Wireless data communication standards, IEEE Globecom 2003, Dec. 2003, San Francisco, CA, tutorial.

Short Courses and Invited Talks excluding conferences:

- 1) T. Cooklev, "Open RAN", Technical University of Sofia, Bulgaria, November 2019.
- 2) T. Cooklev, "Software-defined radio technology," Oulu University, Finland, Oct. 2017.
- 3) T. Cooklev, "Software-defined radio technology," Aarhus University, Denmark, Oct. 2017.
- 4) T. Cooklev, "Modern wireless systems," Technical University of Sofia, Bulgaria, 2014.
- 5) T. Cooklev, "Modern Wireless Systems," Featured faculty presentation, Feb. 2012, IPFW.
- 6) T. Cooklev, "Software-defined radio technology," Tokyo Institute of Technology, Dec. 2011.
- 7) T. Cooklev, "Software-defined radio technology," University of Akron, OH, 2010.
- 8) T. Cooklev, "Modern wireless systems," Catholic University of Leuven, Leuven, Belgium, 2010
- 9) T. Cooklev, "Modern wireless systems," University of Qatar, Doha, Qatar, 2009.

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.