## CURRICULUM VITAE

Bane Vasić The University of Arizona Department of Electrical and Computer Engineering Department of Mathematics Tel: +1 520-626-5550 E-mail: vasic@ece.arizona.edu Web: http://www.ece.arizona.edu/~vasic

### EMPLOYMENT

 The University of Arizona, Tucson, 2000-present Professor of Electrical Engineering and Mathematics, da Vinci Circle Fellow
 Bell Laboratories, 1998-2000 Member of Technical Staff
 Kodak Research Laboratories, 1997-1998 Senior Research Scientist
 Rochester Institute of Technology, 1996-1997 Research Fellow
 University of Nis, Serbia, 1994-1996 Assistant Professor

## EDUCATION

Ph.D. in Electrical Engineering, University of Nis, Serbia, 1994 The youngest Doctor at University of Nis, School of Engineering.
MS in Electrical Engineering, University of Nis, Serbia, 1991
Dipl.-Ing. in Electrical Engineering, University of Nis, Serbia, 1989 Award for student with the largest GPA at the University. One of three scholarship holders of Serbian Academy of Science and Arts from the University of Nis.

# HONORS AND DISTINCTIONS

IEEE Fellow for contributions to coding theory and its applications in data storage systems and optical communications
da Vinci Fellow
2009 IEEE Data Storage Paper Award
2015 Fulbright Scholar
2014 Communication Theory Workshop Poster Award
IEEE Magnetic Theory Society: Editorial Board Member the IEEE Transactions on Magnetics, 2001-present
Kenneth Von Behren Chair

## **RESEARCH INTERESTS**

Error Correction Coding Theory, Information Theory, Theoretical Biology, Coding and Detection for Information Storage, Coding and Modulation for Optical Communications.

Agency	Total \$
DARPA	
DARPA-KECoM	4,298,000
NSF	
NSF-CIF - TDMR	339,000
NSF-CIF – LDPC Decoders	675,000
NSF-TF – Fault Tolerance	300,000
NSF-CIF - DNA	275,000
NSF-ECCS - FSO	325,000
NSF-TF - DNA	30,000
NSF-ITR – Optical Comm.	2,500,000
NSF-CCR – Storage	225,000
NSF CCR-REU	18,000
NSF ITR-REU	6,000
Industry Consortia	
IDEMA ASTC – TDMR Detection	90,000
IDEMA ASTC – TDMR Models	74,000
INSIC EHDR	327,000
INSIC TAPE	75,000
Industry	
Seagate – LDPC $\gamma = 4$	85,000
Seagate – Trapping Sets $\gamma = 4$	85,000
Seagate - HAMR	204,000
Seagate - LDPC	250,000
CORDIS	
ICT-FP7 – MPipe	5,000,000
FET Open – i-RISC	2,180,000
Total (13 years)	17,446,000

#### SUMMARY OF RESEARCH FUNDING LEVELS

#### CURRENT FUNDED RESEARCH HISTORY

**Current Projects** 

Coding and Detection for Two-dimensional Magnetic Recording System NSF-CIF, 8/1/13-7/31/16, \$339,000

Read Channel Modeling and Two-Dimensional Modulation Codes and Detectors for TDMR

IDEMA-ASTC, 10/1/14-9/30/15, \$90,000

Generalized Low-density Parity Check Codes for the 4KB Sector Format Seagate,  $9/1/14\text{-}1/14/15,\,\$85,\!000$ 

Iterative Decoding Beyond Belief Propagation NSF-CIF, 9/1/10-8/31/15, \$675,000

## SAMPLE OF PROFESSIONAL ACTIVITIES

 IEEE Transactions on Magnetics, 2000-present Editorial Board Member
 IEEE Communications Society, 2011-present IEEE Tucson Joint AP/MTT/EMC/COMM Chapter Vice-Chair
 IEEE Journal on Selected Areas in Communications Guest Editor

**IEEE International Conference on Communications ICC 2010** 

Communication Theory Symposium, Symposium Co-Chair
IEEE Communication Theory Workshop, CTW 2007
General Co-Chair
IEEE International Conference on Communications ICC 2006
Communication Theory Symposium, Symposium Co-Chair
IEEE International Conference on Communications, ICC 2005
Communication Theory Symposium, Technical Program Chair
IEEE Communication Theory Workshop, CTW 2002
Technical Program Chair
Los Alamos Workshop on Applications of Statistical Physics to Coding Theory 2005
Co-Organizer, Technical Program Chair
Technical Program Committee Member
DIMACS Workshop on Theoretical Advances in Information Recording, 2004
Co-Organizer, General Co-Chair
DIMACS Workgroup on Theoretical Advances in Information Recording, 2004
Co-Organizer, General Co-Chair
IEEE Communications Theory Workshop, CTW 2003
Co-Organizer
Information Storage Industry Consortium Quarterly Meeting, 2002
Co-Organizer
CRC Handbook of Computer Engineering, 2001
Chapter Editor: Read channels for magnetic recording
CRC Handbook, 2002-2004
Book Co-Editor: Coding and Signal Processing for Magnetic Recording Systems
CRC Handbook, 2004-2006
Book Co-Editor: Advanced Error Control Techniques for Data Storage Systems
IEEE International Conference on Communications ICC 2003
Communication Theory Symposium, Technical Program Chair, Session Chair