# Ata Chizari résumé

 $March\ 20,\ 2018$ 

# Contents

4
5
5
5
5
5
5
5
5
5 

# 0.1 Contact Information

ZH256, Biomedical Photonic Imaging Group (BMPI). MIRA Institute for biomedical Technology and Technical Medicine, University of Twente, Faculty of Science and Technology (TNW), Drienerlolaan 5, 7522 NB Enschede, The Netherlands.

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# 0.2 Education

#### • University of Twente, Enschede, The Netherlands

Feb. 2017 - Exp. 2021,

Ph.D. with focus on Biomedical Photonics,

Thesis: Designing A Handheld Device for Optical Microcirculatory Perfusion Imaging,

Supervisor: Prof. dr. Wiendelt Steenbergen.

# • Shahid Beheshti University (SBU), Tehran, Iran

Sep. 2013 - Sep. 2015,

M.Sc. with focus on Communication Systems,

GPA:17.79/20.00 (3.81/4),

Thesis: Designing A Dimmable OPPM-Based VLC System Under Channel Constraints,

Supervisor: Dr. Akbar Dargahi.

# • Tafresh University, Tafresh, Iran

Sep. 2009 - Sep. 2013,

B.Sc. with focus on Electronics,

GPA:18.72/20.00(3.96/4),

Thesis: Remote Control Switching Device of Electricity Keys with Capability of Easy Installation,

Supervisor: Dr. Ali M. Fotouhi.

#### 0.2.1 Certifications

<ul> <li>Participation in 10<sup>th</sup> IEEE/IET International Symposium on Communication Systems, Networks, and Digital Signal Processing (CSNDSP), Czech Technical University, Prague</li> </ul>	2016
$\bullet$ Participation in $4^{rd}$ Iran Workshop on Comm. and Inf. Theory (IWCIT), Sharif University of Technology, Tehran	2016
$\bullet$ Participation in $3^{rd}$ Iran Workshop on Comm. and Inf. Theory (IWCIT), Sharif University of Technology, Tehran	2015
$\bullet$ Participation in $21^{st}$ Iranian Conference on Optics and Photonics (ICOP), Shahid Beheshti University, Tehran	2015
$\bullet$ Participation in $22^{nd}$ Iranian Conference on Electrical Engineering (ICEE), Shahid Beheshti University, Tehran	2014
• Participation in International Symposium on Telecommunications (IST), Iran Telecommunications Research Center (ITRC), Tehran	2014
• Participation in workshop on Optical Wireless Communication Systems: Indoor and Outdoor, Iran Telecommunications Research Center (ITRC), Tehran	2014

## 0.2.2 Accomplished Courses

**Graduate Courses** 

**Undergraduate Courses** 

#### 0.3 Honors and Awards

- Awarded scholarship for Ph.D. studies from University at Twente, 2017
- IEEE/IET Student Travel Grant Award for 10<sup>th</sup> IEEE/IET CSNDSP 2016, Prague, 2016
- Financial Support for U.S. Patent Application by Iran National Science Foundation, 2016
- Ranked 3<sup>rd</sup> among Communication Systems students of Shahid Beheshti University, 2015
- Member of swimming team of Shahid Beheshti University at 12<sup>nd</sup> Nationwide Student Sport Olympiad, 2014
- Accepted as talented student for graduate studies at Shahid Beheshti University, 2013
- $\bullet$  Ranked 1st among 120 students in class of 2009 Electrical Engineering entrants, 2013
- Ranked top 3% in the National Entrance Exam among Electrical Engineering students of Iran for M.Sc. studies, 2013
- Ranked top 4% in the Nationwide University Entrance Exam (KONKOOR) for B.Sc. studies, 2009
- Ranked 1<sup>st</sup> among 150 students in class of 2004 Mathematics and Physics of Bahonar High School, 2007

# 0.4 Talks

#### 0.5 Research

• Researcher ID: R-5148-2017

#### 0.5.1 Research Interests

- Laser based perfusion imaging
- Laser speckle contrast imaging
- Laser Doppler perfusion imaging
- Analog optical signal processing
- Metamaterials
- Visible light communications and indoor positioning
- Underwater wireless optical communications

#### 0.5.2 Publications

#### **Patents**

- J.A. Salehi, H. Hosseinianfar, and A. Chizari, "Methods and Systems for Geometrical Optics Positioning using Spatial Color Coded LEDs", US Patent, app. No. 15275431, 2016.
- A. M. Fotouhi and A. Chizari, "Remote Control Switching Device of Electricity Keys with Capability of Easy Installation", Iran Patent, registration number: 73930, 2012.

#### Journal Papers and Preprints

- Jamali, M.V., Mirani, A., Parsay, A., Abolhassani, B., Nabavi, P., Chizari, A., Khorramshahi, P., Abdollahramezani, S. and Salehi, J.A., 2018. Statistical Studies of Fading in Underwater Wireless Optical Channels in the Presence of Air Bubble, Temperature, and Salinity Random Variations (Long Version). arXiv preprint arXiv:1801.07402.
- Chizari, A., Jamali, M.V., Abdollahramezani, S., Salehi, J.A. and Dargahi, A., 2017. Visible light for communication, indoor positioning, and dimmable illumination: A system design based on overlapping pulse position modulation. Optik-International Journal for Light and Electron Optics, 151, pp.110-122.
- Abdollahramezani, S., Chizari, A., Dorche, A.E., Jamali, M.V. and Salehi, J.A., 2017. Dielectric metasurfaces solve differential and integro-differential equations. Optics letters, 42(7), pp.1197-1200.
- Jamali, M.V., Chizari, A. and Salehi, J.A., 2017. Performance analysis of multi-hop underwater wireless optical communication systems. IEEE Photon. Technol. Lett., 29(5), pp.462-465.
- Dorche, A.E., Abdollahramezani, S., Chizari, A. and Khavasi, A., 2016. Broadband, polarization-insensitive, and wide-angle optical absorber based on fractal plasmonics. IEEE Photonics Technology Letters, 28(22), pp.2545-2548.
- Jamali, M.V., Chizari, A. and Salehi, J.A., 2016. Performance analysis of multi-hop underwater wireless optical communication systems (extended version). arXiv preprint:1603.02895.
- Chizari, A., Abdollahramezani, S., Jamali, M.V. and Salehi, J.A., 2016. Analog optical computing based on a dielectric meta-reflect array. Optics letters, 41(15), pp.3451-3454.

#### Conference Proceedings

- Chizari, A., Jamali, M.V., AbdollahRamezani, S., Salehi, J.A. and Dargahi, A., 2016, July. Designing a
  dimmable OPPM-based VLC system under channel constraints. In Communication Systems, Networks
  and Digital Signal Processing (CSNDSP), 2016 10th International Symposium on (pp. 1-6). IEEE.
- Olyaee, S., Nikoosohbat, A., Mohebzadeh-Bahabady, A. and Chizari, A., 2016, July. Square-hexagonal nanostructured photonic crystal fiber at 1550 nm wavelength. In Communication Systems, Networks and Digital Signal Processing (CSNDSP), 2016 10th International Symposium on (pp. 1-4). IEEE.
- Ghahremanirad, E., Olyaee, S. and Chizari, A., 2016, July. Nano-plasmonic thin-film solar cell receiver
  in visible light communication. In Communication Systems, Networks and Digital Signal Processing
  (CSNDSP), 2016 10th International Symposium on (pp. 1-5). IEEE.
- Lotfi-Rezaabad, A., Talebi, S. and Chizari, A., 2016, July. Two quasi orthogonal space-time block codes with better performance and low complexity decoder. In Communication Systems, Networks and Digital Signal Processing (CSNDSP), 2016 10th International Symposium on (pp. 1-5). IEEE.
- Fazelian, M., AbdollahRamezani, S., Bahrani, S., Chizari, A., Jamali, M.V., Khorramshahi, P., Tashakori, A., Shahsavari, S. and Salehi, J.A., 2016, May. Mining DNA sequences based on spatially coded technique using spatial light modulator. In Communication and Information Theory (IWCIT), 2016 Iran Workshop on (pp. 1-6). IEEE.
- Jamali, M.V., Khorramshahi, P., Tashakori, A., Chizari, A., Shahsavari, S., AbdollahRamezani, S., Fazelian, M., Bahrani, S. and Salehi, J.A., 2016, May. Statistical distribution of intensity fluctuations for underwater wireless optical channels in the presence of air bubbles. In Communication and Information Theory (IWCIT), 2016 Iran Workshop on (pp. 1-6). IEEE.

#### 0.5.3 Awarded Research Grants

- PhD Scholarship, University of Twente, 2017-2021, 100k euros
- $\bullet$  IEEE/IET Student Travel Grant Award for  $10^{\rm th}$  IEEE/IET CSNDSP 2016, Prague, Czech Republic, 2016, 300 euros
- US Patent Application, Iran National Science Foundation (INSF), 2016, 17k USD

# 0.5.4 Technical Review Activities

- IEEE Transaction on Vehicular Technology
- IEEE Photonics Journal
- IEEE Vehicular Technology Magazine
- IEEE Communications Letters
- Journal of Optical Communications and Networking

#### 0.5.5 Membership

IEEE Communications Society (93943136), 2016

# 0.6 Teaching

#### 0.6.1 Advisees

Master Student

Undergraduate Students

## 0.6.2 Teaching Assistantships

# 0.6.3 Laboratory Assistantships

# 0.7 References

- Prof. Wiendelt Steenbergen (E-mail: w [dot] steenbergen [at] utwente [dot] nl)
  Professor, Faculty of Science and Technology, University of Twente (PhD: Delft Uni. of Tech.)
- Prof. Jawad A. Salehi (E-mail: jasalehi [at] sharif [dot] edu)
  Professor, IEEE Fellow, Electrical Engineering, Sharif University of Technology (PhD: USC)
- Dr. Akbar Dargahi (E-mail: a-dargahi [at] sbu [dot] ac [dot] ir) Assistant Professor, Electrical Engineering, Shahid Beheshti University (PhD: Uni. of Wales)
- Dr. S. Ali Ghorashi (E-mail: a\_ghorashi [at] sbu [dot] ac [dot] ir)
  Associate Professor, Electrical Engineering, Shahid Beheshti University (PhD: King's Collenge London)
- Dr. Farah Torkamani-Azar (E-mail: f-torkamani [at] sbu [dot] ac [dot] ir)
  Associate Professor, Electrical Engineering, Shahid Beheshti University (PhD: New South Wales University)
- Dr. Ali M. Fotouhi (E-mail: fotouhi [at] tafreshu [dot] ac [dot] ir)
  Assistant Professor, Electrical Engineering, Tafresh University (PhD: Amirkabir Uni. of Tech.)

## 0.8 Links

- Google Scholar
- Linkedin
- Twitter
- Facebook

# 0.9 Languages

- English, Professional Working Proficiency (B2)
- Dutch, Limited Working Proficiency (B1)
- Persian, Native

# 0.10 Citizenship

- Permanent Citizen of Iran
- $\bullet$  Temporal Resident of The Netherlands

# 0.11 Leisure Activities

- Swimming
- $\bullet$  Running
- Cycling
- Mountaineering