# Habib Mostafaei

CONTACT Department of Engineering, Roma Tre University

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RESEARCH INTERESTS Software Defined Networking (SDN), Computer Networks, Internet routing, Wireless Networks.

EDUCATION Roma Tre University, Rome, Italy

Ph.D., Computer Science, Expected: Autumn 2018

• Thesis Topic: undefined

• Advisors: Giuseppe Di Battista, Ph.D

Islamic Azad University

M.S., Software Engineering, Sep 2009

• Thesis Topic: Energy-Efficient Scheduling for Coverage Problems in Wireless Sensor Networks using Learning Automata

• Advisor: Meybodi M. R, Ph.D

RESEARCH EXPERIENCE PhD Student

Nov 2015 - present

Department of Engineering, Roma Tre University, Rome, Italy

Lecturer Sep 2009 - Sep 2015

Department of Computer Engineering, Islamic Azad University, Urmia Branch, Urmia, Iran

REFEREED JOURNAL PUBLICATIONS

- 1. Mostafaei, H., Shojafar M, B. Zaher, M. Singhal, Barrier Coverage of WSNs with the Imperialist Competitive Algorithm, The Journal of Supercomputing, 2017.
- Mostafaei, H., Persico, V. and Pescape A., A Sleep Scheduling Approach based on Learning Automata for WSN Partial Coverage, Journal of Network and Computer Applications, Vol 80, pp. 67-78, 2017.
- 3. G. Vinueza Naranjo P., Shojafar M. **Mostafaei, H.**, Pooranian Z. and Baccarelli E., P-SEP: A Prolong Stable Election Routing Algorithm for Energy-limited Heterogeneous Fog-supported Wireless Sensor Networks, The Journal of Supercomputing, vol 73(2), pp. 733-755, 2017.
- 4. **Mostafaei, H.**, Stochastic Barrier Coverage in Wireless Sensor Networks based on Distributed Learning Automata, Journal of Computer Communications, Vol 55(1), pp. 51-61, 2015.
- 5. **Mostafaei, H.**, Shojafar M, A New meta-heuristic Algorithm for maximizing lifetime of Wireless Sensor Networks, Springer, Wireless Personal Communications , Vol 82(2), pp. 723-742, 2015.
- Shojafar M, Abolfazli S, Mostafaei, H., Singhal M, Improving Channel Assignment in Multi-Radio Wireless Mesh Networks with Learning Automata, Springer, Wireless Personal Communications, Vol 82(2), pp 61-80, 2015.

- 7. Mostafaei, H., Esnaashari, M, and Meybodi, M. R, A Coverage Monitoring algorithm based on Learning Automata for Wireless Sensor Networks, Applied Mathematics & Information Sciences (AMIS), Vol 9(3), pp.1317-1325, 2015.
- 8. Mostafaei, H. and Meybodi, M. R., An Energy Efficient Barrier Coverage algorithm in Wireless Sensor Networks, Springer, Wireless Personal Communications, Vol 77(3), pp. 2099-2115, 2014.
- 9. **Mostafaei, H.**, Target Scheduling algorithm for Wireless Sensor Networks: Imperialist Competitive Algorithm Approach, International Journal of Natural and Engineering Sciences (IJNES), Volume 7(2), pp. 63-66, 2013.
- Mostafaei, H. and Meybodi, M. R., Maximizing Lifetime of Target Coverage in Wireless Sensor Networks using Learning Automata, Wireless Personal Communications , Springer, Volume 71(2), pp. 1461-1477, 2013.
- 11. **Mostafaei, H.**, Meybodi, M. R. and Esnaashari, M., A Learning Automata based Area Coverage Algorithm for Wireless Sensor Networks, Journal of Electronic Science and Technology, Vol 8(3), pp. 200-205, 2010.

# Conference Publications

- Habib Mostafaei, Gabriele Lospoto, Roberto di Lallo, Massimo Rimondini, Giuseppe Di Battista, SDNetkit: A Testbed for Experimenting SDN in Multi-Domain Networks, IEEE Netsoft-MPNSV 2017.
- 2. Habib Mostafaei, Gabriele Lospoto, Andrea Brandimarte, Roberto di Lallo, Massimo Rimondini, Giuseppe Di Battista, SDNS: Exploiting SDN and the DNS to Exchange Traffic in a Federated Network, IEEE NetSoft 2017.
- 3. Marco Chiesa, Roberto di Lallo, Gabriele Lospoto, **Habib Mostafaei**, Massimo Rimondini, Giuseppe Di Battista, PrIXP: Preserving the Privacy of Routing Policies at Internet eXchange Points, 2017 IFIP/IEEE International Symposium on Integrated Network Management (IM 2017).
- Roberto di Lallo, Federico Griscioli, Gabriele Lospoto, Habib Mostafaei, Maurizio Pizzonia, Massimo Rimondini, Leveraging SDN to Monitor Critical Infrastructure Networks in a Smarter Way, 2017 IFIP/IEEE International Symposium on Integrated Network Management (IM 2017).
- Mostafaei, H., Persico, V. and Pescape A., An Efficient algorithm for partial Coverage of Wireless Sensor Networks, The twenty first IEEE Symposium on Computers and Communications (ISCC 2016), pp. 501-506, 2016. Runner up for best paper awards.
- 6. Mostafaei, H., Chowdhury, M. U., Islam, R., and Gholizadeh, H., Connected P-Percent Coverage in Wireless Sensor Networks based on Degree Constraint Dominating Set approach, The 18<sup>th</sup> ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems, Cancun, Mexico, pp. 157-160, 2015.
- Mostafaei, H. and Meybodi, M. R., Increasing Lifetime of Wireless Sensor Networks Through Power Aware Organization using Learning Automata, Proceedings of the 5th Iran Data Mining Conference (IDMC'11), Amirkabir University of Technology, Tehran, Iran, December 13-14, 2011.
- 8. Ghanbarzadeh R., **Mostafaei, H.**, Multi-stage face recognition with regard to components of the face using artificial neural networks, Third National Conference on Computer Engineering and Information Technology(CEIT 2011), Sama, Hamedan, Iran. 2011;

- 9. Mostafaei, H., Meybodi, M. R. and Esnaashari, M., An Energy Efficient Scheduling for target Coverage using Learning Automata, Proceedings of the 4th National Conference Of Iran's Scientific Society on Command, Control, Communications, Computers & Intelligence, Sharif University of Technology, Tehran, Iran, Nov 10-11. 2010.
- Mostafaei, H., Meybodi, M. R. and Esnaashari, M., Area Coverage in Sensor Networks using Learning Automata, Proceedings of the First Iranian Congress on Information Technology and Communication(IICTC2010), Tehran, Iran, May 22-24, 2010.
- 11. **Mostafaei, H.**, Meybodi, M. R. and Esnaashari, M., EEMLA: Energy Efficient Monitoring of Wireless Sensor Network with Learning Automata, Proceedings of the 2010 International Conference on Signal Acquisition and Processing, Bangalore, India, pp. 107-111, Feb.9-10,2010.
- Mostafaei, H., Meybodi, M. R. and Esnaashari, M., An Efficient Scheduling for Barrier Coverage in Sensor Networks using Learning Automata, Proceedings of the 15<sup>th</sup> Annual CSI Computer Conference(CSICC'10), Tehran, Iran, Feb. 20-22, 2010

# TECHNICAL REPORTS

 Roberto di Lallo, Federico Griscioli, Gabriele Lospoto, Habib Mostafaei, Maurizio Pizzonia, Massimo Rimondini, Leveraging SDN to Monitor Critical Infrastructure Networks in a Smarter Way, http://arxiv.org/abs/1701.04293, Jan 2017.

# Awards and Honors

- Full Three-year PhD Research Scholarship, High Impact Research, Ministry of Higher Education, Italy
   Nov 2015 - Oct 2018
- 2-year scholarship for Master of Science in Software Engineering, Islamic Azad University, Iran. Sep 2007 Sep 2009
- Travel awards, Computer Networks group, University of Paderborn, Paderborn, Germany

  Oct 2015

# Honors

- Outstanding Reviewer for Journal of Networks and Computer Applications. Otc-2016
- Rank 1<sup>st</sup> at International fellowship competition for PhD positions in the Computer Science and Automation at Roma Tre University, Rome, Italy. Nov 2015

# TEACHING EXPERIENCE

## Teaching Assistant

- Infrastructure of Computer Networks taught by Prof. Maurizio Patrignani, 2017/2018
- Information Visualization taught by Prof. Maurizio Patrignani, 2016/2017

# Instructor Sep 2009- Sep 2015

- Algorithms Design (credits: 3): Spring 2010, Autumn 2010, Spring 2011, Spring 2014, Autumn 2014, Spring 2015.
- Advanced Programming Languages (credits:3): Spring 2012, Autumn 2012
- Operating Systems (credits:3): Spring 2011.
- Software Engineering (credits: 3): Spring 2012, Spring 2013, Autumn 2013, Spring 2014.
- Database Design principles(credits:3): Spring 2011, Autumn 2011, Spring 2012, Autumn 2012, Spring 2014, Autumn 2014.
- Computer Graphics with OpenGL(credits:3): Spring 2012, Autumn 2012, Spring 2013, Autumn 2013, Spring 2014, Autumn 2014.

- TECHNICAL SKILLS Programming Languages: C#, C, C++, Java, Visual Basic, and Python.
  - Software: Microsoft Office, Microsoft Project, LaTex, EndNote, Rational Rose.
  - DataBase Software: MS SQL Server, MS Access.
  - Operating Systems: Microsoft windows Family Configuration, Linux.
  - Networking:
    - Software Defined Networks
      - OpenFlow specification
      - Mininet emulation environment, SDNetkit
      - OpenFlow controller frameworks (Ryu)
    - TCP, UDP, IPv4, IPv6 protocols
    - Application-layer protocols (HTTP, DNS, IMAP, SMTP, etc.)
    - Routing protocols (OSPF, BGP) and routing software (Quagga, BIRD)
  - Virtualization and Emulation
    - Oracle VM VirtualBox
    - VMware
  - Experience in the setup, execution, and maintenance of containers (LXC, Docker)

# Reviewer of International JOURNALS AND Conferences

- IEEE Transactions on Mobile Computing, July 2016.
- IEEE Internet of Things Journal, (Jul, Oct) 2016, Apr 2017.
- IEEE Transactions on Industrial Electronics, Dec 2016
- IEEE Systems Journal, Oct 2015, (Feb, Mar, Apr, May, Sep, Dec) 2016, (Feb, Mar, Apr) 2017.
- KSII Transactions on Internet and Information Systems, Aug 2016
- International Journal of Communication Systems, Sep 2015.
- IET Wireless Sensor Systems, (Jul, Aug) 2017.
- IEEE Communications Letters, Jul 2015.
- Wireless Personal Communications, Jul 2015, Springer.
- Soft Computing, May 2015, Springer.
- Computing, 2014, Springer.
- Wireless Networks, 2014, Springer.
- Journal of Network and Computer Applications, Jan 2013, (Jan, Feb, Mar, May, June, Oct, Nov, Dec) 2016, Feb 2017.
- Computers & Electrical Engineering, Sep 2013, Oct 2015, (Jun, Aug, Sep, Dec) 2016, Feb 2017.
- Computer Networks, Feb 2017.
- Computer Communications, Feb 2017.
- Engineering Science and Technology, Oct 2016.
- Neural Computing and Applications, Oct 2016.
- Journal of Computational Science, (Jan, Mar) 2017.
- IETE Journal of Research, Mar 2017.
- ISCC 2016 The twenty first IEEE Symposium on Computers and Communications.
- IEEE Globecom 2016.
- IEEE ICC 2017.
- DCNET 2017.

## Courses

- Spanners, Ph.D course By: Prof. Prosenjit Bose, Carleton University, Canada, Apr 2017.
- Infrastructures of Computer Networks, By: Prof. Di Battista, Oct 2016-Feb 2017.
- Algorithms for big data, By: Prof. Di Battista, April 2016.
- Advanced topics in Computer Science, By: Prof. Peter Eades & Prof. Eduardo B. Fernandez, Master Course, Mar-Jun 2016.
- Information Visualization, By: Maurizio Patrignani, Master Course, Mar-Jun 2016.
- Combinatorial and Algorithmic Techniques in Graph Theory, Ph.D course By: Prof.

Vida Dujmovic, University of Ottawa, Canada. Feb and Mar 2016

#### Summer schools

- KuVS Summer School in Software Defined Networking (SDN) and Network Function Visualization (NFV), Glucksburg, Germany.

  June 2016.
- Network Programmability: Emerging methodologies, technologies, and applications, Lipari, Italy, July 09-15, 2017

# Workshops & Seminars

- How to write a technical paper for the IEEE?, Apr 2017, Roma Tre University.
- Data Driven Innovation, Roma Tre University, Feb 2017.
- Data Driven Innovation, Roma Tre University, May 2016.
- Data Driven Innovation: The confounding problem of private data release, Roma Tre University, Feb 2016.
- Preparing documents with Latex, Azad University Training Center, Iran 2013.
- Referencing papers with EndNote, Azad University Training Center, Iran 2013.
- Preparing International Papers in English, Azad University Training Center, Iran 2012.
- Preparing ISI Journal Papers, Azad University Training Center, Iran 2012.
- Communication Methods, Azad University Training Center, Iran 2011.
- Optimizing the relationship between Teacher and Student, Azad University Training Center, Iran 2011.
- Training Skills: 1, 2 and 3, Azad University Training Center, Iran 2010.

# PARTICIPANTS IN CONFERENCES

- Attended in NetSoft 2017, Bologna, Italy.
- Attended in IM 2017, Lisbon, Portugal.
- Presentation within the ISCC 2016 conference, Messina, Italy
- $\bullet$  Presentation within 15  $^{th}$  Annual CSI Computer Conference(CSICC'10), Tehran, Iran.
- Presentation within First Iranian Congress on Information Technology and Communication (IICTC2010), Tehran, Iran.
- Presentation within 4<sup>th</sup> National Conference Of Iran's Scientific Society on Command, Control, Communications, Computers & Intelligence, Sharif University of Technology, Tehran, Iran.
- Presentation within 5<sup>th</sup> Iran Data Mining Conference (IDMC'11), Amirkabir University of Technology, Tehran, Iran.

# Professional Membership

- IEEE Software Defined Networking (SDN) Member
- 2017-present

• IEEE Communications Society Member

2017-present

• IEEE Student Member

- 2016-present
- Member of Young researchers' club Islamic Azad University(2010-present)
- International Association of Computer science and Information Technology.

# TPC

- $\bullet\,$  TPC in  $4^{th}$  International Conference on wireless communications and sensor networks.
- TPC in 3rd International Conference on wireless communications and sensor networks.

#### References

- 1. **Giuseppe Di Battista**, Professor in Computer Science, Department of Engineering, Roma Tre University, Rome, Italy, Phone: +39-06-57333209, E-mail:gdb@dia.uniroma3.it
- 2. **Antonio Pescapè,** Dipartimento di Ingegneria Elettrica e delle Tecnologie dell'Informazione, University of Naples Federico II, Naples, Italy, Phone. +39 081 7683856, Email: pescape@ieee.org, pescape@unina.it.

- 3. **Maurizio Patrignani**, Professor in Computer Science, Department of Engineering, Roma Tre University, Rome, Italy, E-mail:patrigna@dia.uniroma3.it
- 4. Morshed U. Chowdhury, School of Information Technology, Faculty of Science, Engineering and Built Environment, Melbourne Burwood Campus, 221 Burwood Highway, Burwood, VIC 3125, Phone: +61 3 92517478, Email: muc@deakin.edu.au

PRIVACY

I hereby authorize the treatment of my personal data according to the Italian law, Art.13 of the  $Dlgs\ n.\ 196/2003.$