

CURRICULUM VITAE

PERSONAL INFORMATION:

- NAME: **MOHAMMED SALEM ELMUSRATI**
- Home Address (Finland): **Reviisorinkatu 5 D 70, 02770 Espoo - Finland**
- Status: **Married + 3 children**
- Current Position: **Full Professor**
- Current Affiliation: **School of Technology and Innovations – University of Vaasa - Finland**
- Work Address: **University of Vaasa - PL700, 65101 Vaasa - Finland**
- TELEPHONE (Finland): **+358 50 400 3763**
- Email: **mohammed.elmusrati@uwasa.fi**
- Email2: **mohammed.elmusrati@gmail.com**
- University website: **<http://www.uwasa.fi/en>**
- My Profile on the University site: **<https://www.uwasa.fi/en/person/1041705>**

EDUCATION:

- Doctor of Science in Technology (D.Sc.):** from Control Engineering Laboratory, Helsinki University of Technology on Aug. 2004. The thesis title is “**Radio Resource Scheduling and Smart Antennas in Wireless CDMA Communication Systems**”. The average grade of courses is **5.0/5.0**
- Licentiate of Technology** from Control Engineering Laboratory, Helsinki University of Technology on 2002. The thesis is under the title “**Power control and MIMO beamforming in CDMA mobile communication systems**” and has been accepted *with distinction*.
- M.Sc.** in Electrical & Electronic Eng. From Benghazi University (previous name Garyounis University)- Benghazi - Libya on fall 1995 with an average grade of courses **3.89/4.00*** and final thesis under the title “ **Artificial Neural Networks & Applications**” with grade as **Excellent**.
- B.Sc.**, in Electrical & Electronic Eng. From Benghazi University on spring 1991 with an average **3.27/4.00*** and final thesis under the title “**Low Noise Amplifiers in Satellite communication**” which has been accepted with grade of **4.0/4.0**.

WORK EXPERIENCE:

- Full Professor** (*Permanent position*) - School of Technology and Innovations - University of Vaasa - Finland, starting from 1.6.2009 - present
- Head** of the international program of Sustainable Autonomous Systems at University of Vaasa.
- Full Professor** (on Leave) at the Department of Electrical and Electronic Engineering - University of Benghazi, started in September 2012.
- Professor** at Telecommunication Engineering – Faculty of Technology, the University of Vaasa starting from 01.08.2007-31.5.2009.
- Full-Time Senior Lecturer and Researcher** at the Department of Computer Science, University of Vaasa – Finland from 1-8-2004 to 31.7.2007.

- **Senior Researcher:** at Control Engineering Lab. - Automation Department- Helsinki University of Technology- Finland. Main task: leading research activities in wireless automation (wireless sensor and actuator networks). Working in many industrial and academic research projects.
- **Visiting Researcher** at Radio Lab. Royal Institute of Technology (KTH) – Stockholm – Sweden during 2003.
- **Visiting Professor** at the High Institute of Industry (HII) in Misrata – Libya, during the Summer 2009.
- **Researcher Scientist:** at Helsinki University of Technology, Control Engineering Laboratory from 1-9-1999 until 31-07-2004.
- **Full-Time Lecturer Assistant** at Faculty of Engineering- Benghazi University – Benghazi - Libya, from fall 1995 to spring 1999.
- **Part-Time Lecturer** at the High Institute of Electronics –Benghazi - Libya from Fall 1993 to Spring 1999.
- **Teaching Assistant** at the faculty of Engineering- Garyounis University from fall 1992 to spring 1994

TEACHING EXPERIENCE:

Prof. Elmusrati has about 25 years of teaching experience. He has lectured in five different institutes: Faculty of Electrical and Electronic Technology – Benghazi- Libya, Benghazi University-Benghazi-Libya, Higher Institute of Industry – Misrata – Libya, Aalto University (Helsinki University of Technology) - Finland, and the University of Vaasa – Finland. He has taught more than 20 different courses in different areas of Wireless Communication, Analogue and Digital Electronics, Signals and Systems, Control Theory, Numerical Analysis, Mathematics, Stochastic Processes, Machine Learning, Advanced Estimation Theory, Mobile Networks, Game Theory, Wireless Automation, and other topics.

PhD Research Supervision:

Elmusrati has supervised several Ph.D. students at the University of Vaasa – Finland. Ph.D. students are:

A. Graduated:

1. Dr. **Duan Ruifeng**, "*On performance analysis of cognitive radios*", defense date: 12.02.2014
2. Dr. **Omar Abu-Ella**, "*Interference mitigation using group decoding in multiantenna systems*", defense date: 17.10.2014
3. Dr. **Hossien Ahmadzadegan**, "*Security-centric analysis and performance investigation of IEEE 802.16 WiMAX*", defense date: 04.06.2015
4. Dr. **Mike Mekkanen** "On Reliability and Performance Analyses of IEC 61850 for Digital SAS" defense date: 20 October 2015
5. Dr. **Veli-Tapani Peltoketo**, "Benchmarking of embedded digital cameras", defense data: 11 August 2016
6. Dr. **Heikki Palomäki**, "Wireless Distributed Intelligence", defense date: 4 December 2017

7. Dr. **Shaima Abdelmageed** "E-Health Diagnosis over Low Energy Processors", Defense date: 2 May 2019.
8. Dr. **Caner cuhac** "Wireless sensor networks with industrial applications", Defense date: 11 November 2019
9. Dr. **Alabi Rasheed**, "Deep Learning Applications for Diagnosis and Prediction of Cancer", defense date: 15 April 2021

B. Working for their Ph.D.

10. **Mahmoud ElSanhoury**, "High Accurate Indoor Positioning with Artificial Intelligence and Machine Learning", expected defense date: December 2022
11. **Joel Reijonen**, "Intelligent Cloud Operations in 5G Networks", expected defense date: May 2023
12. **Wiqar Khan**, "Smart Halls Under 5G Networking", expected defense date: November 2022
13. **Akpojoto Siemuri**, "AI and Machine learning applications for GNSS", expected defense date: November 2022
14. **Yakubu Diaba**, "Machine Learning in Power Generation of Smart Grids", expected defense date: September 2023
15. **Hilda Amo Henaku**, "Early age prediction of cardiac arrest occurrence in individuals using machine learning", expected defense date: November 2024
16. **Md Mofizur Rahaman**, "Artificial Judge - Machine Learning and Game Theory Approach", expected defense date: November 2025
17. **Ahmed Elmehdawi**, "Artificial Linguistic Development for M2M Communication", expected defense date: XX
18. **Benjamin Addo-Mensah**, "Optimizing radio resources allocation for D2D Communication under 5G networks", expected defense date: XX
19. **Mouaouka Redouane**, "Machine learning applications in power protection of smart grids", expected defense date: XX
20. **Tewodros Ambow**, "Communication & Configuration Performance Impediment Resolution in Smart Grids' Telecontrol Systems", expected defense data: XX
21. **Abdulla Mohamed**, "Machine learning for resources allocations in IoT with 6G networking", expected defense date: XX
22. **Samiyeh Akbari**, "Intelligent resources allocation in 6G networks with AI/ML", expected defense date: XX

Moreover, Elmusrati has supervised more than 80 Master theses as well as many B.Sc. projects.

RESEARCH INTERESTS:

- Radio Resource Management in all Generations of Mobile Communication Networks.
- Beamforming and Spatial Multiplexing.

- Stochastic Processes: Modeling, Estimation, and Control
- Machine Learning, AI, and Evolutionary Computing
- Game Theory and Multi-Objective Optimization.
- Wireless Sensor Network with Agricultural applications
- Ultra Wide Band (UWB) Communication and Ad hoc Networks.
- Distributed Actuators and Sensor Networks.
- Applications of Wireless Communications in Power Systems.
- Smart Grids.
- Data Mining
- E-Health

PROFESSIONAL ACTIVITIES

- **Senior Member of the IEEE**
- **Member of the Automation Society in Finland**
- **Member of SIAM (Society for Industrial and Applied Mathematics)**
- **General Conference Chair** for the international Workshops on Wireless Communications and Applications, which has been held in Vaasa – Finland during 2008, 2010, and 2012.
- **Editor-in-Chief** of Almadar Journal of Communication, IT, and Applications.
- **Editor:** Journal of Wireless Networks, Springer Publisher
- **TPC Committee Chair** for the International Conference of Electrical and Computer Engineering – Benghazi, March 26-28, 2013
- **Leading research groups for several projects.**
- **Leading Committees for Education Courses in Engineering and the Evaluation Processes.**
- **Evaluator/ Examiner of more than 15 PhD/Licentiate manuscripts.**
- **Member of the technical program committee (TPC) in many international conferences**
- **Reviewer for many international.**
- **Technical Consultant** for
 - General electrical company of Libya (GECOL),
 - Almadar Mobile Operator (biggest mobile operator in Libya)

PUBLICATION ACTIVITIES

- Author and co-author for about 150 papers and reports.
- Co-author of the textbook “**Systems Engineering in Wireless Communications**”, publisher: J. Wiley, Nov. 2009, ISBN 978-0470021781.
- Author of textbook “**Uncertainties: Modeling and Simulations**”, under preparation.

Updated: June 2022