

Ali Hassan Sodhro
Avdelningen för datavetenskap
Fakulteten för naturvetenskap
Research environment of Computer science
E-post: ali.hassan_sodhro@hkr.se



Forskning

Ali Hassan Sodhro (PhD, IEEE Senior Member): He is currently working as a Senior Lecturer, Department of Computer Science, Kristianstad University, Kristianstad, Sweden.

He worked as a Lecturer at Department of Computer and System Science (DSV), Mid-Sweden University, Östersund from Jan 2021 to Sept.2021. Before that, he worked as a Postdoctoral Research Fellow at Department of Computer Science, Electrical and Space Engineering, Luleå University of Technology, Luleå, Sweden since June 2020 to Dec 2020, and visiting Lecturer in Applied Information Technology Department, Cognition and Communication division, Gothenburg University, Gothenburg, Sweden since Oct. 2020 to Jan 2021. Dr. Sodhro also worked as a Postdoctoral Research Fellow at Computer and Information Science Department, Linköping University, Linköping, Sweden from Aug.2018 to May 2020. Before that, Dr. Sodhro worked as the Postdoctoral Researcher at DISP LAB University Lumiere Lyon2, Lyon, France under Erasmus Mundu's SMARTLINK Project from Aug.2017 to July 2017.

He obtained his PhD in Computer Applications Technology from Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences (SIAT, CAS), Shenzhen, China and University of Chinese Academy of Sciences (UCAS), Beijing China in May 2016. He received both M.E in Communication Systems and Networks, and B.E in Telecommunication from one of the leading Engineering University of named, Mehran University of Engineering and Technology, Jamshoro Sindh Pakistan in 2011 and 2008, respectively.

He has published more than 80 publications in top-notch journals and conferences such as, IEEE Transactions on Industrial Informatics (TII), IEEE IoT-J, IEEE Wireless Communications Magazine, IEEE Transactions on Intelligent Transportation System (T-ITS), IEEE Sensors Journal, IEEE Consumer Electronics Magazine, IEEE Access, Information Fusion-Elsevier, FGCS-Elsevier, NCAA-Springer, IET Communications, International Journal of Communication Systems-Wiley, IEEE ICC, IEEE VTC, and so on. Besides, he published 6 book chapters in well-known publishers for instance, Springer, Elsevier, and CRC Press.

He is serving as an Associate Editor of top-notch journals such as, IEEE Transactions on Intelligent Transportation Systems (T-ITS), and IEEE Transactions on Industrial Informatics (TII), IET Electronics Letters, Telecommunications System Journal-Springer and so on.

He is researching in following areas

AI/ML for Edge/Cloud Computing

Smart and Healthcare

Internet of Things (IoT)/Internet of Medical Things (IoMT)

Physical Layer Security in 5G applications

Multimedia Transmission in Healthcare Applications

Green, Sustainable, and Reliable Healthcare Systems

Body Sensor Networks, and Wireless Sensor Networks

Energy Harvesting for Healthcare Systems

Kvalifikationer

Fil. Dr.

Anställning

Avdelningen för datavetenskap

Högskolan Kristianstad

2021-okt.-01 → present

Fakulteten för naturvetenskap

Högskolan Kristianstad

2021-okt.-01 → present

Research environment of Computer science

Högskolan Kristianstad

2021-okt.-01 → present

Lecturer

Mid Sweden University

Sverige

2021-jan.-01 → 2021-sep.-30

Lecturer

Gothenburg University

2020-okt.-01 → 2021-jan.-30

Postdoctoral Research Fellow

Luleå University of Technology

Sverige

2020-aug.-01 → 2020-dec.-31

Postdoctoral Research Fellow

Linköping University

2018-aug.-01 → 2020-aug.-31

Postdoctoral Research Fellow

University Lumiere Lyon 2, Lyon, France

Frankrike

2017-aug.-24 → 2018-juli-31

Forskningsoutput

Intelligent authentication of 5G healthcare devices: A survey

Sodhro, A. H., Awad, A. I., van de Beek, J. & Nikolakopoulos, G., 2022-sep.-06, I: Internet of Things (Netherlands). 20, 2022, s. 1-25 100610.

A Systematic Review and IoMT Based Big Data Framework for COVID-19 Prevention and Detection

Hamid, S., Bawany, N. Z., Sodhro, A. H., Lakhan, A. & Ahmed, S., 2022-sep.-03, I: Electronics (Switzerland). 11, 17, s. 1-21 2777.

A Lightweight Security Scheme for Failure Detection in Microservices IoT-Edge Networks

Sodhro, A. H., Lakhan, A., Pirbhulal, S., Groenli, T. M. & Abie, H., 2022-juli-08, *Sensing Technology*. Suryadevara, N. K., George, B., Jayasundera, K. P., Roy, J. K. & Mukhopadhyay, S. C. (red.). Cham: Springer, s. 397-409 13 s. (Lecture Notes in Electrical Engineering; vol. 886).

MASTS: Microservice-Aware Secure Task Scheduling System for Distributed Workflow Drone Applications

Sodhro, A. H. & Sennersten, C., 2022-juni-17, s. 1-5. 5 s.

Adaptive mobility-aware and reliable routing protocols for healthcare vehicular network

Zardari, N. A., Ngah, R., Hayat, O. & Sodhro, A. H., 2022-maj-16, I: Mathematical Biosciences and Engineering. 19, 7, s. 7156-7177 22 s.

A Lightweight Secure Adaptive Approach for Internet-of-Medical-Things Healthcare Applications in Edge-Cloud-Based Networks

Lakhan, A., Sodhro, A. H., Majumdar, A., Khuwuthyakorn, P. & Thinnukool, O., 2022-mars-19, I: Sensors. 22, 6, s. 1-18 2379.

Towards Cognitive Authentication for Smart Healthcare Applications

Hassan Sodhro, A., Sennersten, C. & Ahmad, A., 2022-mars-09, I: *Sensors*. 22, 6, s. 1-18 18 s., 2101.

AI-driven adaptive reliable and sustainable approach for internet of things enabled healthcare system

Zahid, N., Sodhro, A. H., Kamboh, U. R., Alkhayyat, A. & Wang, L., 2022-feb.-11, I: *Mathematical Biosciences and Engineering*. 19, 4, s. 3953-3971 19 s.

Ai-enabled framework for fog computing driven E-healthcare applications

Sodhro, A. H. & Zahid, N., 2021-dec.-01, I: *Sensors*. 21, 23, s. 1-16 16 s., 8039.

Toward Convergence of AI and IoT for Energy-Efficient Communication in Smart Homes

Sodhro, A. H., Gurtov, A., Zahid, N., Pirbhulal, S., Wang, L., Rahman, M. M. U., Imran, M. A. & Abbasi, Q. H., 2021-juni-15, I: *IEEE Internet of Things Journal*. 8, 12, s. 9664-9671 8 s.

Link Optimization in Software Defined IoV Driven Autonomous Transportation System

Sodhro, A. H., Rodrigues, J. J. P. C., Pirbhulal, S., Zahid, N., De MacEdo, A. R. L. & De Albuquerque, V. H. C., 2021-juni, I: *IEEE Transactions on Intelligent Transportation Systems*. 22, 6, s. 3511-3520 10 s., 9014535.

Decentralized Energy Efficient Model for Data Transmission in IoT-based Healthcare System

Sodhro, A. H., Al-Rakhami, M. S., Wang, L., Magsi, H., Zahid, N., Pirbhulal, S., Nisar, K. & Ahmad, A., 2021-apr.-25, 2021 *IEEE 93rd Vehicular Technology Conference, VTC 2021-Spring - Proceedings*. Institute of Electrical and Electronics Engineers Inc., (IEEE Vehicular Technology Conference; vol. 2021-April).

Cost-efficient service selection and execution and blockchain-enabled serverless network for internet of medical things

Lakhan, A., Ali Dootio, M., Sodhro, A. H., Pirbhulal, S., Groenli, T. M., Khokhar, M. S. & Wang, L., 2021, I: *Mathematical Biosciences and Engineering*. 18, 6, s. 7344-7362 19 s.

Dynamic application partitioning and task-scheduling secure schemes for biosensor healthcare workload in mobile edge cloud

Lakhan, A., Li, J., Groenli, T. M., Hassan Sodhro, A., Zardari, N. A., Imran, A. S., Thinnukool, O. & Khuwuthyakorn, P., 2021, I: *Electronics*. 10, 22, s. 1-30 29 s., 2797.

Implementation and Evaluation of the ACE DTLS Framework over Internet of Things Devices

Johansson, J., Sodhro, A. H. & Gurtov, A., 2021, 2021 *IEEE 2nd International Conference on Signal, Control and Communication, SCC 2021*. Institute of Electrical and Electronics Engineers Inc., s. 175-181 7 s.

Internet of medical things for independent living and re-learning

Sodhro, A. H., Ahlin, K., Ahmad, A. & Mozelius, P., 2021, s. 1-5. 4 s.

Multi-layer latency aware workload assignment of E-Transport IoT applications in mobile sensors cloudlet cloud networks

Lakhan, A., Dootio, M. A., Groenli, T. M., Sodhro, A. H. & Khokhar, M. S., 2021, I: *Electronics*. 10, 14, s. 1-25 24 s., 1719.

On the security and privacy challenges of virtual assistants

Bolton, T., Dargahi, T., Belguith, S., Al-Rakhami, M. S. & Sodhro, A. H., 2021, I: *Sensors*. 21, 7, s. 1-19 18 s., 2312.

Secure and failure hybrid delay enabled a lightweight RPC and SHDS schemes in Industry 4.0 aware IIoHT enabled fog computing

Dootio, M. A., Lakhan, A., Hassan Sodhro, A., Groenli, T. M., Bawany, N. Z. & Kumar, S., 2021, I: *Mathematical Biosciences and Engineering*. 19, 1, s. 513-536 24 s.

Towards Blockchain-Enabled Security Technique for Industrial Internet of Things Based Decentralized Applications

Sodhro, A. H., Pirbhulal, S., Muzammal, M. & Zongwei, L., 2020-dec., I: *Journal of Grid Computing*. 18, 4, s. 615-628 14 s.

Quality of Service Optimization in an IoT-Driven Intelligent Transportation System

Sodhro, A. H., Obaidat, M. S., Abbasi, Q. H., Pace, P., Pirbhulal, S., Yasar, A. U. H., Fortino, G., Imran, M. A. & Qaraqe, M., 2019-dec.-01, I: IEEE Wireless Communications. 26, 6, s. 10-17 8 s.

Energy-efficient adaptive transmission power control for wireless body area networks

Sodhro, A. H., Li, Y. & Shah, M. A., 2016-jan.-04, I: IET Communications. 10, 1, s. 81-90 10 s.

An implementation of web services for inter-connectivity of information systems

Chandio, A. A., Zhu, D., Sodhro, A. H. & Syed, M. U., 2014-sep.-01, I: International Journal of Computing and Digital Systems. 3, 3, s. 219-225 7 s.