

**M. Shamim Hossain**, Ph.D., SM-IEEE, Distinguished Member-ACM, IEEE Distinguished Lecturer  
**Clarivate Highly Cited Researcher in Computer Science (Web of Science™)**

Professor, Dept. of Software Engineering  
College of Computer and Information Sciences  
King Saud University, Riyadh 12372, Saudi Arabia  
&

Adjunct Professor, EECS, University of Ottawa, Canada

Email: [mshossain@ksu.edu.sa](mailto:mshossain@ksu.edu.sa)

Web: <https://faculty.ksu.edu.sa/en/mshossain>

Phone: +966 1 4676189 (Office)

**M. Shamim Hossain** is a Professor at the Department of Software Engineering, College of Computer and Information Sciences, King Saud University, Riyadh, Saudi Arabia. Director, Chair of Pervasive and Mobile Computing (CPMC), College of Computer and Information Science, King Saud University, Riyadh, Saudi Arabia. He is also an adjunct professor at the University of Ottawa's School of Electrical Engineering and Computer Science, ON, Canada. He received his Ph.D. in Electrical and Computer Engineering from the University of Ottawa, ON, Canada, in 2009. His research interests include cloud networking, smart environments (such as smart cities and smart health), AI, deep learning, LLM, edge computing, the Internet of Things (IoT), multimedia for healthcare, and multimedia big data. He has authored and co-authored more than 435 publications, including refereed journal articles, conference papers, books, and book chapters. He has served as co-chair, general chair, workshop chair, publication chair, and TPC member at several IEEE and ACM conferences. He is the **chair of the IEEE Special Interest Group in Artificial Intelligence (AI) for Health** with the **IEEE ComSoc eHealth Technical Committee**. He is the General Chair of the IEEE International Conference on E-Health Networking, Applications, and Services (Healthcom, 2028), scheduled for October 2028 in Saudi Arabia. He serves as the Symposium Chair for Selected Areas in Communications (E-Health) at IEEE GLOBECOM 2024 and 2027. He is the Track Chair of the IEEE International Conference on Consumer Electronics (ICCE 2024, 2025). He is the Technical Program Co-Chair of ACM Multimedia 2023. He is currently the Chair of the Saudi Arabia Section of the Instrumentation and Measurement Society Chapter. He was the recipient of several awards, including the Best Conference Paper Award, The **2024 IEEE Communications Society Outstanding Paper Award**, the **2016 ACM Transactions on Multimedia Computing, Communications and Applications (TOMM) Nicolas D. Georganas Best Paper Award**, the **2019 King Saud University Scientific Excellence Award (Research Quality)**, and the Research in Excellence Award from the College of Computer and Information Sciences (CCIS), King Saud University (3 times in a row). He is on the editorial board of IEEE Transactions on Mobile Computing, IEEE Transactions on Cognitive Communications and Networking, IEEE Transactions on Instrumentation and Measurement (TIM), IEEE Transactions on Multimedia (TMM), IEEE Transactions on Consumer Electronics (TCE), IEEE Transactions on Vehicular Technology (TVT), ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM), IEEE Multimedia, IEEE Network, IEEE Wireless Communications, Journal of Network and Computer Applications (Elsevier). He has served as a Lead Guest Editor for more than two dozen Special Issues (SIs), including *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)*, *ACM Transactions on Internet Technology*; *IEEE Transactions on Consumer Electronics*; *IEEE Communications Magazine*; *IEEE Network*; *IEEE Transactions on Information Technology in Biomedicine* (currently *JBHI*); and *IEEE Transactions on Cloud Computing*. He is a senior member of the IEEE and a Distinguished Member of the ACM. He is an IEEE Distinguished Lecturer (DL). He is a Clarivate Highly Cited Researcher in Computer Science (Web of Science™).

### Highlights

- Clarivate Highly Cited Researcher in Computer Science (Web of Science™)
- "Honorable mention " AI 2000 Annual List in the field of the Internet of Things Top 100 in the world (96th), <https://www.aminer.cn/ai2000/iot> . **Only one from KSU** and other 2 from KAUST.
- [World's Best Computer Science Scientists: H-Index Computer Science Ranking in Saudi Arabia 2025/2026 | Research.com](https://www.research.com/scientists-rankings/computer-science/sa)
- [M. Shamim Hossain | Scholar Profiles and Rankings | ScholarGPS](https://www.research.com/scientists-rankings/computer-science/sa), 24<sup>th</sup> worldwide in Deep Learning
- Best Computer Science Scientists 2025/2026 in Saudi Arabia: <https://research.com/scientists-rankings/computer-science/sa>

a) NAME:

**M. Shamim Hossain**

Professor, King Saud University, Saudi Arabia

<http://www.researcherid.com/rid/K-1362-2014>

<https://scholar.google.com/citations?user=E2qi5HwAAAAJ>

[M. Shamim Hossain \(0000-0001-5906-9422\) - ORCID](https://orcid.org/0000-0001-5906-9422)

b) DEGREES:

Ph.D. in Electrical and Computer Engineering, EECS, University of Ottawa, 2009  
M.Sc. in Computer Science, EECS, upgraded to Ph.D. Due to outstanding performance, 2004  
B.Eng. in Computer Science and Engineering, Khulna University, Khulna 1995

c) EMPLOYMENT HISTORY:

06/2022- Present Director, Chair of Pervasive and Mobile Computing (CPMC), College of Computer and Information Science, King Saud University, Riyadh, Saudi Arabia.  
01/2018- Present Professor, Software Engg. Dept. CCIS, King Saud University, Saudi Arabia  
02/2014- 01/2018 Associate Professor, Software Engg. Dept. CCIS, King Saud University, Saudi Arabia  
01/2017- Present Adjunct Professor, School of Electrical Engineering and Computer Science (EECS), University of Ottawa, Canada,  
04/2010-02/2014 Assistant Professor Software Engg. Dept. CCIS, King Saud University, Saudi Arabia  
05/2009-03/2010 Post Doc Research Associate and Lab Manager, MCRLab, University of Ottawa, Canada  
09/2002- 04/2009 Research Assistant and Lab Manager, MCRLab, University of Ottawa, Canada

d) ACADEMIC HONOURS:

2025 Highly Ranked Scholars™ (No. 1 in KSU) [Highly Ranked Scholars | ScholarGPS](#)  
2024 The IEEE Communications Society Outstanding Paper Award  
2024 Top 2% of Scientists in the world in Artificial Intelligence & Image Processing (**both Career-Long and Single Year Categories**) (Stanford University)  
2023 Clarivate Analytics (Web of Science™) Highly Cited Researcher in Computer Science – 2023  
2023/24 Career-long citations ranked in the Top 2% of the Most-Cited Scientists in the world  
2022 IEEE Distinguished Lecturer, IEEE Communications Society (ComSoc)  
2021 Clarivate Analytics (Web of Science™) Highly Cited Researcher in Computer Science – 2022  
2022 ACM Distinguished Member, Association for Computing Machinery (ACM)  
2021 IEEE Distinguished Lecturer, IEEE Communications Society (ComSoc)  
2020 Top 2% of Scientists in the world in Artificial Intelligence & Image Processing  
2019 Top 2% of Scientists in the world in the Networking and Telecommunication field  
2019 Scientific Excellence (Research Quality), King Saud University, Riyadh, Saudi Arabia  
2018 DSR, KSU Research Excellence in publishing Top 2% in the field  
2018 ACM Recognition as an ACM Senior Member  
2017 Excellence in Research Award 2017, CCIS, King Saud University, Riyadh, Saudi Arabia  
2016 Excellence in Research Award 2016, CCIS, King Saud University, Riyadh, Saudi Arabia  
2016 ACM Transactions on Multimedia Nicolas D. Georganas Best Paper Award  
2016 Best Paper Award, CLOUDCOMP 2016  
2014 Excellence in Research Award 2015, CCIS, King Saud University, Riyadh, Saudi Arabia  
The Outstanding Paper Award, IEEE ICACT'2014, Phoenix Park, South Korea, Feb 16-19, 2014  
2013 IEEE Recognition for the Outstanding Organization of HAVE 2013  
2009 Nominated for the Best Ph.D. Thesis Prize, University of Ottawa, Ottawa, Canada  
2009 IEEE recognition as an IEEE Senior Member  
2006 Best Demo Award at the 2006 annual Intelligent Interactive Learning Object Repositories Conference (I2LOR-2006), Montreal, Canada

PROFESSIONAL ASSOCIATIONS

**Chair, SIG Artificial Intelligence (AI) for Health**, IEEE ComSoc eHealth TC  
**Chair**, Saudi Arabia Section of the Instrumentation and Measurement Society Chapter  
**Member, ACM Distinguished Member Selection Committee**  
**Secretary**, IEEE CTSoc Virtual Reality, Augmented Reality and Metaverse (VAM TC)  
**IEEE Societies/Councils Liaison Officer**, IEEE CTSoc Consumer Systems for Healthcare and Wellbeing Technical Committee (CSH TC)  
ACM Distinguished Member  
Senior Member, IEEE  
Member, ACM SIGMM.  
Member, IEEE Communications Society  
Member, IEEE Computer Society

Member, IEEE Instrumentation and Measurement Society  
 Member, IEEE Technical Committee on Multimedia Communications (MMTC)  
 Member, IEEE Technical Committee on Multimedia Computing (TCMC)  
 Member, IEEE Cloud Computing Community  
 Member, IEEE Computational Intelligence Society  
 Member, IEEE Industrial Electronics Society  
 Member, IEEE Computer Society Technical Community on Cloud Computing  
 Member, IEEE Internet of Things Community  
 Member, IEEE Smart Cities Community  
 Member, IEEE Computational Intelligence Society

COMMITTEE MEMBERSHIP IN KSU:

04/1438- 04/1440 Head, Development and Accreditation Committee, SWE, CCIS  
 10/1434- 04/1442 Head, Lab, and Technical Affairs Committee, SWE, CCIS  
 04/1438- 04/1441 Head, NCAAA, SWE, CCIS  
 10/1435-04/1441 Member, NCAA, College of Computer and Information Sciences (CCIS)  
 10/1432- Present Member, ABET, SWE, CCIS  
 04/1438- Present Member, Study Plan, and Academic Guidance Committee  
 04/1440- Present Member, Graduate Studies Committee, SWE, CCIS  
 04/1438- Present Member, M.Sc. Curriculum Committee, SWE, CCIS  
 04/1438- Present Member, B.Sc. Curriculum Revising Committee, SWE, CCIS

e) SCHOLARLY AND PROFESSIONAL ACADEMIC ACTIVITIES:

1) **Editorial activities**

*Editorial Board/Associate Editor*

**Associate Editor**, IEEE Transactions on Mobile Computing  
**Associate Editor**, IEEE Transactions on Vehicular Technology  
**Associate Editor**, IEEE Transactions on Cognitive Communications and Networking  
**Associate Editor**, IEEE Transactions on Consumer Electronics  
**Associate Editor**, IEEE Transactions on Instrumentation and Measurement  
**Technical Editor**, IEEE Transactions on Multimedia (Till, 2023)  
**Associate Editor**, ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)  
**Technical Editor**, IEEE Multimedia (Till, 2022)  
**Technical Editor**, IEEE Network  
**Technical Editor**, IEEE Wireless Communications (2019-2022)  
**Associate Editor**, IEEE Access (Till, 2022)  
**Member, Editorial Board**, Journal of Computer Networks and Applications (Elsevier)  
**Member, Editorial Board**, Intl. Journal of Multimedia Tools and Applic. (Springer) (12 Years)  
**Technical Editor**, Games for Health  
**Associate Editor**, International Journal of Information Technology, Communications and Convergence (Inderscience)

ii) *Guest Editor*

2025 **Lead Guest Editor**, IEEE Transactions on Consumer Electronics, SI: Federated Learning for Consumer-centric Internet of Medical Things (IoMT)  
 2024 **Lead Guest Editor**, ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM), SI: Explainable AI (XAI) and Digital Twins (DT) for Smart Healthcare  
 2024 **Lead Guest Editor**, IEEE Transactions on Consumer Electronics, SI: Digital Twin and Metaverse for Consumer Health (MCH)  
 2021 **Lead Guest Editor**, ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM), SI: AI-empowered Multimedia Data Analytics for Smart Healthcare  
 2020 **Lead Guest Editor**, ACM Transactions on Internet Technology, SI: Edge-AI for Connected

- Living
- 2020 **Lead Guest Editor**, IEEE Network Magazine, SI: AI-enabled Networking Technologies for Tackling Epidemic Diseases
- 2020 **Lead Guest Editor**, Multimedia Systems, SI: Deep Learning for Multimedia Healthcare
- 2019 **Lead Guest Editor**, IEEE Network Magazine, SI: Enabling Networked Services and Technologies for Connected Healthcare
- 2018 **Lead Guest Editor**, IEEE Communications Magazine, SI: Advances of Next-Generation Networking Technologies for Smart Healthcare
- 2016 **Lead Guest Editor**, IEEE Communications Magazine, SI: Impact of Next-Generation Mobile Technologies on IoT-Cloud Convergence
- 2017-18 **Lead Guest Editor**, Elsevier Future Generation Computer Systems, SI: The Convergence of the Internet of Things and Cloud for Smart Healthcare
- 2017 **Lead Guest Editor**, Springer Multimedia Tools and Applications, SI: Multimedia for Smart Healthcare
- 2016 **Lead Guest Editor**, IEEE Transactions on Cloud Computing, SI: Advances of Multimedia Big Data on the Cloud
- 2016 **Lead Guest Editor**, Springer Multimedia Tools and Applications, SI: Advances in Next Generation Multimedia Services and Applications: Impact of Cloud and Social Media
- 2016 **Lead and Only Guest Editor**, Springer Multimedia Tools and Applications, SI: Multimedia for Smart Healthcare
- 2016 **Lead Guest Editor**, SENSORS (MDPI), SI: Multisensory Big Data Analytics for Enhanced Living Environments
- 2016 **Lead Guest Editor**, Elsevier Future Generation Computer Systems, SI: Cloud-Based Multimedia Services for healthcare and other related applications
- 2016 **Lead Guest Editor**, Elsevier Computers & Electrical Engineering, SI: Multimedia Services for E-health
- 2015 **Lead Guest Editor**, Springer Cluster Computing, SI: Advances in Multimedia-based Cloud-Computing for Healthcare
- 2015 **Lead Guest Editor**, International Journal of Distributed Sensor Networks, SI: Advances in Multimedia Sensor Networks for Healthcare and Related Applications
- 2015 **Lead Guest Editor**, Springer Multimedia Tools and Applications, SI: Advances in Multimedia for Health
- 2012 **Lead Guest Editor**, IEEE Transactions on Information Technology in Biomedicine, SI: Multimedia Services and Technologies for E-health

## 2) Conference Organization Chair

- 2028 **General Chair**, IEEE International Conference on E-health Networking, Application & Services (Healthcom, 2028), October 2028, Saudi Arabia.
- 2027 **Chair**, Selected Areas in Communications (E-Health), IEEE GLOBECOM 2027, 12-16, 2027, Abu Dhabi, UAE
- 2026 **Technical Co-Chair**, IEEE World Forum on the Internet of Things (IEEE WF-IoT, 2026), Dubai, UAE
- 2025 **Technical Chair**, IEEE Symposium for Multidisciplinary Computational Intelligence Incubators (IEEE MCII) with Norway, IEEE SSCI 2025, 17th - 20th March, 2025.
- 2024 **Chair**, Selected Areas in Communications (E-Health), IEEE GLOBECOM 2024, 8-12 December, South Africa
- 2024 **Track Chair**, IEEE International Conference on Consumer Electronics (ICCE), 6-8 January 2024, Las Vegas, NV, USA, Consumer Systems for Healthcare and Wellbeing Technical Committee (CSH TC) Track
- 2023 **Technical Program Co-Chair**, ACM Multimedia, 29 Oct-3 Nov. 2023, Ottawa, Canada
- 2023 **Co-Chair**, 3rd IEEE GLOBECOM 2023 Workshop on Edge-AI and IoT for Connected Health, 4-8 December 2023, / Kuala Lumpur, Malaysia
- 2022 **Co-Chair**, 2nd IEEE GLOBECOM 2022 Workshop on Edge-AI and IoT for Connected Health, Rio de Janeiro, Brazil, 4-8 December 2022
- 2022 **Organizing Co-Chair**, Special Sessions with IEEE I2MTC 2022, Ottawa, Canada
- 2021 **Co-Chair**, 1st IEEE GLOBECOM 2021 Workshop on Edge-AI and IoT for Connected Health, Madrid, Spain, 7-11 December 2021

- 2021 **Co-Chair** of the Special Session “AI-Enabled technologies for smart health monitoring”, with IEEE I2MTC 2021
- 2020 **Co-Chair**, IEEE Intl Workshop on Multimedia Services and Technologies for smart-health (MUST-SH 2020) with IEEE ICME 2020, London, UK
- 2020 **Publicity Co-Chairs**, IEEE 3rd International Conference on Multimedia Information Processing and Retrieval (IEEE MIPR 2020) April 9-11, 2020, Shenzhen, Guangdong, China.
- 2019 **Co-Chair**, 1st IEEE GLOBECOM 2019 Workshop on The Advances of the Internet of Things and Cloud for Smart Connected Living (AIoTCSCCL, 2019). Waikoloa, HI, USA.
- 2019 **Co-Chair**, IEEE Intl Workshop on Multimedia Services and Technologies for smart-health (MUST-SH 2019) held with IEEE ICME 2019, Shanghai, China
- 2018 **Co-Chair**, IEEE Intl Workshop on Multimedia Services and Technologies for smart-health (MUST-SH 2018) held with IEEE ICME 2018, USA
- 2017 **Co-Chair**, 7<sup>th</sup> IEEE Intl Workshop on Multimedia Services and Technologies for E-health (MUST-EH 2017) held with IEEE ICME 2017, Hong Kong
- 2016 **Co-Chair**, 6<sup>th</sup> IEEE Intl Workshop on Multimedia Services and Technologies for E-health (MUST-EH 2016) held with IEEE ICME 2016, Seattle, USA.
- 2015 **Co-Chair**, 5<sup>th</sup> IEEE Intl Workshop on Multimedia Services and Technologies for E-health (MUST-EH 2015) held with IEEE ICME 2015, Torino, Italy.
- 2014 **Co-Chair**, 4<sup>th</sup> IEEE Intl Workshop on Multimedia Services and Technologies for E-health (MUST-EH 2014) held with IEEE ICME 2014, Chengdu, China.
- 2013 **Co-Chair**, 3<sup>rd</sup> IEEE Intl Workshop on Multimedia Services and Technologies for E-health (MUST-EH 2013) held with IEEE ICME 2013, San Jose, CA, USA
- 2012 **Co-Chair**, 2<sup>nd</sup> IEEE Intl Workshop on Multimedia Services and Technologies for E-health (MUST-EH 2012) held with IEEE ICME 2012, Melbourne, Australia.
- 2015 **Co-Chair**, 1<sup>st</sup> IEEE Intl Workshop on Multimedia Services and Technologies for E-health (MUST-EH 2011) held with IEEE ICME 2011, Barcelona, Spain.
- 2012 **Chair**, 1<sup>st</sup> ACM Multimedia Workshop on Cloud-Based Multimedia Applications and Services for E-health, November 2012, Nara, Japan

**3) Program committee member**

1. IEEE ICCE 2025
2. IEEE GLOBECOM 2022, 2023, 20224, IEEE MCCI 2024, IEEE ICC 2025
3. I2MTC 2022
4. IEEE MIPR 2020, IEEE Globecom 2020 – AidSH, Taipei, Taiwan
5. IEEE Globecom 2019 CSSMA, IEEE Globecom 2019 IoTCS, Hawaii, USA Dec 9-13, 2020.
6. ICNC'19 MCC, Honolulu, Hawaii, USA, February 18-21, 2019
7. IEEE ICTS4eHealth 2019, Barcelona, Spain
8. IEEE ICTS4eHealth 2018, Natal, Brazil, June 25-28, 2018
9. Joint Conference on Serious Games 2018, Germany, 7-8 November, 2018
10. IEEE ICME 2012-2018[9 times]
11. International Conference on Cloud Computing and Big Data (CCBD 2016) Chengdu, Sichuan, China
12. International Conference on Cloud Computing and Big Data (CCBD 2015), November 4th-6th, 2015, Taipei. Taiwan.
13. Gamedays, 2011-2016
14. ACM Multimedia Workshop on Serious Games, 2014
15. International Symposium on Emerging Inter-networks, Communication and Mobility (EICM'2014)
16. MCIT 2010, ISSPA 2010

**f) GRADUATE SUPERVISIONS:**

Completed: 4 MSC.  
In progress: 3 PhD

NAME OF STUDENTS supervised within the past years, title of thesis or project (specify), and both month and year of year of first registration and year of completion.

### MSC

1. Ahmad Alshomar, (MSC), "A Framework for Social Media Big Data Integration on Cloud", 2016-2018
2. Bader Alqasem, (MSC), "Detecting and Tracking Arabic Abuse in Social Media", 2016- 2018
3. Mohammed Albaqawi (MSC), "Service provisioning of social media big data on cloud," Sep 15 -17
4. Abdulaziz Alharbi (MSc), "Medical image classification using a convolutional neural network, " Sep 18- Dec'19.

### PhD

5. Nojoom A. Al-Najem (PhD), A Meta Learning Approach for Software Requirements Similarity Detection, 2025
6. Abeer AlFaify : Ai for Cyber Security -Ongoing
7. Munira alsu: Agentic AI

### PosDoc Researcher

Syed Umar Amin (2019-2021)

g)

#### 1) GRADUATE COURSES:

2014-2015 Software Testing and Quality (SWE 505) / (CSI5118 : Automated verification and Validation of Software (U Ottawa)

2014-2015 Software Usability Engineering (SWE 509) / (CSI5122: Software Usability (U Ottawa)

2015-2016 Software Usability Engineering (SWE 509) /CSI 5122: Software Usability (U Ottawa)

2016-2017 Multimedia System (SWE 518)/ ELG 5121 Multimedia Communications (U Ottawa)

2017-2018 Software Testing and Quality (SWE 505) / (CSI5118: Automated verification and Validation of Software (U Ottawa)

2017-2018 Software Usability Engineering (SWE 509) / (CSI5122: Software Usability (U Ottawa)

2019-2020 Selected Topics: Machine Learning and Data Science (SWE 510)

2025-2026 Multimedia Software System SWE 622 (ELG 5121 Multimedia Communications)

#### 2) UNDERGRADUATE COURSES:

As a Professor, Software Engineering Dept, CCIS, King Saud University

Human Computer Interactions (SWE 482)

Software Testing and Validations (SWE 434)

Software Project Management (SWE 466)

Introduction to Software Engineering (SWE 211)

Software Maintenance and Evolution (SWE 455)

Graduation Project I (SWE 496)

Graduation Project II (SWE 497)

As a TA and Lab Instructor in SITE, University of Ottawa, Ottawa, Canada

Analysis and Design for User Interfaces (SEG 3120)

Software Quality Assurance (SEG 3203)

Communications and Networking (SEG 3255)

Introduction to Computing I (ITI 1220)

Computing Concepts for Business (CSI 1301D)

Data Structures and Algorithms (CSI 2114)

Engineering Computation (GNG 1101 D A)

SEG: Software Engineering, CSI: Computer Science

#### h) RESEARCH FUNDING:

<u>Names</u>	<u>Funding Agency-Title of Project</u>	<u>Year</u>	<u>Role</u>
<i>M. Shamim Hossain</i>	National Science, Technology and Innovation Plan (NSTIP) KACST, Saudi Arabia: Novel	2013 – 2015	Co-PI

<i>M. Shamim Hossain</i>	Pervasive Computing Approach to Counter and Manage Obesity in KSA <b>NSTIP:</b> Enabling Cloud-based Mobile Multimedia Services in KSA	2013 – 2015	Co-PI
<i>M. Shamim Hossain</i>	<b>NSTIP:</b> Seamless Integration of Body Sensor Networks and Cloud Computing for Pervasive Healthcare	2015- Closed	Co-PI
<i>M. Shamim Hossain,</i> G. Muhammad.	Deanship of Scientific Research ( <b>DSR</b> ), KSU Group Project: Big Data Analytics and the Internet of Things for Ubiquitous Health Monitoring & Communications	2013 –	PI
G. Muhammad and <i>M. Shamim Hossain</i>	<b>DSR, RGP:</b> Multimodal Healthcare System Research Group	2015 –	Co-PI PI
<i>M. Shamim Hossain,</i> C. Xu, Chinese Academy of Science, China	<b>International Research Group (IRG):</b> Social Event Mining in Cross-Domain Multimedia Platforms	2015 – 2017	
<i>M. Shamim Hossain</i>	Research Centre (RC), CCIS, Efficient resource allocation for QoS-aware big data processing in cloud environment	2015 – 2016	PI PI
<i>M. Shamim Hossain,</i> <b>M. Guizani</b> (Idaho Uni., USA)	<b>International Scientific Partnership Program ISPP</b> Enabling Ubiquitous Communication Technologies for Social Event Mining and Other Emergent Applications	2018-2020	CO-PI
M. A Rahman (UPM), E. Hassanaein (UMQ), <i>M. Shamim Hossain (KSU)</i> , Stuart J. Barne (Kings College, UK), and D.Wallom ( Univ. Oxford, UK)	<b>RDO Grant Challenge with International Collaboration, Ministry of Education [UPM, UQU, King's College, UK and U of Oxford, UK]</b>  RDICC project: AnIoT Enabled, Blockchain-Based Secure Framework to Provide Context-Aware, Spatio- Spatio-temporal early Warning Services for a Hajj Mass Crowd	2019-	PI PI
<i>M. Shamim Hossain</i>	<b>High Quality and Impact Research Initiative-</b> Ministry of Education, Research and Development Office (RDO), Ministry of Education	2019-2021	
M. A Rahamn (UPM), <i>M. Shamim Hossain</i>	<b>COVID-19 Research Grant Program, KACST</b> A Multi-Modal Point-of-Care Deep Learning-based AI Framework for COVID-19 Rapid Diagnosis	2020-	CO-PI
<i>M. Shamim Hossain</i>	Institutional Funding for Research and Innovation, Ministry of Education, Saudi Arabia	2020-2022	PI
<i>M. Shamim Hossain</i>	Researcher Supporting Project (RSP), KSU	2019-	PI
<i>M. Shamim Hossain</i>	Distinguished Scientist Fellowship Program (DSPF2023), KSU as a Clarivate Highly Cited Researcher (Web of Science™)	2022-	PI

j) PUBLICATIONS:

1) Lifetime summary (count) according to the following categories:

Books Authored	6
Chapters in books	3
Patent (In process)	1
Papers in ISI-indexed Journals	390
Papers in refereed conference proceedings	41
<b>Total</b>	<b>440</b>

Books authored:

- B.1. **M. Shamim Hossain**, Utku Kose, and Deepak Gupta, "Explainable Machine Learning for Multimedia Based Healthcare Applications," ISBN: 978-3-031-38035-8 2023, Springer, <https://www.amazon.com/Explainable-Learning-Multimedia-Healthcare-Applications/dp/3031380355>
- B.2. A. El Saddik, **M. Shamim Hossain**, and B. Kantarci (Eds.) "Connected Health in Smart Cities," 1st ed. 2020 edition (Jan 2020), Springer. ISBN: 978-3-030-27844-1. 255 pages.  
<https://link.springer.com/book/10.1007%2F978-3-030-27844-1>
- B.3. **M. Shamim Hossain**, Operating Systems. Open University, 1998, pp.1- 260, ISBN 984-34-4001-1
- B.4. A. Sadat and **M. Shamim Hossain**, Digital Systems and Computer Organizations. Open University, 1998, pp. 99-132, ISBN 984-34-4001-1.
- B.5. G. Uddin and **M. Shamim Hossain**, Successful Study Skills: a guide for students new to Distance Education. J. Dekkers Ed., Central Queensland University, Rockhampton, Australia, 1998
- B.6. **M. Shamim Hossain**, S. Haque, G.K. Karmakar and Z. Swapon, Office Automation. Open University, 1997, pp. 1-145, ISBN 984-34-4002-1.

Chapters in books:

- CH.1. S. U. Amin · M. Alsulaiman · G. Muhammad, **M. Shamim Hossain**, and M. Guizani, "Deep Learning for EEG Motor Imagery-Based Cognitive Healthcare," A. El Saddik et al. (eds.), Connected Health in Smart Cities, Springer Nature Switzerland AG 2020,
- CH.2. **M. Shamim Hossain** and A. El Saddik, "Multimedia content repurposing in wireless environment," in Encyclopedia of Wireless and Mobile Communications, Borko Furht Ed. CRC Press, Taylor & Francis Group, 2007.
- CH.3. A. El Saddik and **M. Shamim Hossain**, "Multimedia Streaming for wireless communication," in Encyclopedia of Wireless and Mobile Communications, Borko Furht Ed. CRC Press, Taylor & Francis Group, 2007.
- CH.4. El Saddik and **M. Shamim Hossain**, "Multimedia Content Repurposing" in Encyclopedia of Multimedia," Borko Furht Ed. Springer Book Series, Feb. 2006

Papers in refereed Journals- IF means ISI-(SCI/SCI-E) Indexed Impact Factor from Thomson Reuters- now Clarivate Analytics

**\* Corresponding author**

- J.1. J. Lyu, X. Chen, **M. Shamim Hossain**, S. A. F. Al-Hazzaa and C. Wang, "Dual-MFNet: AI-Driven Dual-Scale Multimodal Fusion With State Space Networks for Personalized MRI Synthesis," *IEEE Journal of Biomedical and Health Informatics*, vol. 30, no. 1, pp. 732-745, Jan. 2026.
- J.2. J. Tang, B. Guo, Y. Shen, S. Garg, G. Kaddoum, and **M. Shamim Hossain**, "A Data Completion Algorithm Based on Low-Rank Prior Knowledge for Data-Driven Applications," *IEEE Transactions on Network and Service Management*, vol. 23, pp. 1232-1241, 2026.
- J.3. S. Prajapat, D. Kumar, **M. Shamim Hossain** and P. Lorenz, "Quantum-Enabled Cross-Domain Aggregate Signature Protocol for Securing Electric Vehicle Networks Using Blockchain," *IEEE Transactions on Vehicular Technology*, doi: 10.1109/TVT.2026.3677537, 2026.
- J.4. S. Prajapat, S. O. Hwang and **M. Shamim Hossain**, "Blockchain-Enabled Quantum Signature Scheme for Securing Consumer Electronics-Centric IoT Networks," *IEEE Transactions on Consumer Electronics*, vol. 72, no. 1, pp. 1904-1914, Feb. 2026
- J.5. SU Amin, M Guizani, **M. Shamim Hossain**, "Advances, Evaluation, and Explainability of Large Language Models in Healthcare: A Systematic Review," *ACM Trans. Multimedia Comput. Commun. Appl.* Vol. 22, no. 2, Article 60 (February 2026), 32 pages.

- J.6. MA Rahman, SU Jamil, **M. Shamim Hossain**, MA Khan, T Zia, MA Paracha, and S. A. F. Al-Hazzaa. "An LLM-Enabled Multimodal Agentic AI Framework for the Medical Internet of Things (MIoT)," *ACM Trans. Multimedia Comput. Commun. Appl.* (March 2026), 32 pages <https://doi.org/10.1145/38050>.
- J.7. S. Prajapat, D. Kumar, M. S. Hossain and P. Lorenz, "Quantum-Enabled Cross-Domain Aggregate Signature Protocol for Securing Electric Vehicle Networks Using Blockchain," *IEEE Transactions on Vehicular Technology*, doi: 10.1109/TVT.2026.3677537.
- J.8. Y Wang, M Guizani, **M. Shamim Hossain**, "Immersive Ink-and-Wash Landscape Design in Multimedia for Art Therapy," *ACM Trans. Multimedia Comput. Commun. Appl.* Vol. 21, no. 11, Article 327, (Nov. 2025), pp. 1-26
- J.9. Jing Li, Jun Guo, **M. Shamim Hossain**, Ning Yu, "Artificial Intelligence for Virtual Reality: State of the Art, Challenges, and Future Perspectives," *ACM Trans. Multimedia Comput. Commun. Appl.* Vol. 21, no. 11, Article 333, (Nov. 2025), pp. 1-29
- J.10. M. F. Saiyed, I. Al-Anbagi and **M. Shamim Hossain**, "An Explainable Deep Learning System for Cyberattack Detection in Internet of Energy Networks," *IEEE Network*, vol. 40, no. 2, pp. 39-46, March 2026.
- J.11. M. F. Saiyed, I. Al-Anbagi and **M. Shamim Hossain**, "An Intelligent Intent-Aware System for DDoS Attacks Detection and Mitigation in IoT Networks," *IEEE Internet of Things Journal*, vol. 12, no. 9, 2026, 10.1109/JIOT.2025.3625096.
- J.12. X Zhang, H Feng, **M. Shamim Hossain**, Y Chen, H Wang, Y Yin, Scaled background swap: Video augmentation for action quality assessment with background debiasing," *ACM Trans. Multimedia Comput. Commun. Appl.* Vol. 21, no. 8, Article 243, (Aug. 2025), pp. 1-18
- J.13. P. Li, S. Chen, B. Li, M. Wang, C. Li and **M. Shamim Hossain**, "Reinforcement Learning-Based Adaptive Mobile Charging Station Placements in Mobile-Fixed Charging Stations Collaboration Network," in *IEEE Transactions on Intelligent Transportation Systems*, vol. 27, no. 3, pp. 3773-3787, March 2026.
- J.14. J. Lyu, L. Li, S. A. F. Al-Hazzaa, C. Wang, and **M. Shamim Hossain**, "TransSeg: Leveraging Transformer with Channel-Wise Attention and Semantic Memory for Semi-Supervised Ultrasound Segmentation," *IEEE Journal of Biomedical and Health Informatics*, 2025, vol. 29, no. 12, pp. 9312-9324, Dec. 2025.
- J.15. M. Al-Hawawreh and **M. Shamim Hossain**, "A Human-Centered Quantum Machine Learning Framework for Attack Detection in IoT-Based Healthcare Industry 5.0," *IEEE Internet of Things Journal*, vol. 12, no. 22, pp. 46065-46074, 15 Nov.15, 2025
- J.16. Y. Qiao, Y Xue, Y Zhai, D Zhang, B Chen, AV Vasilakos, M S Hossain, "A Secure and Efficient Sharing Scheme for Medical IoT Data Based on Consortium Blockchain," *IEEE Internet of Things Journal*, vol. 12, no. 23, pp. 51422-51437, 1 Dec.1, 2025.
- J.17. S. Prajapat, D. Kumar, and **M. Shamim Hossain**. "Secure quantum aggregate signature scheme for vehicular ad-hoc networks." *Vehicular Communications*, vol. 56, pp. 100974, 2025
- J.18. S. Prajapat, D. Kumar, P. Kumar, A. K. Das and **M. Shamim Hossain**, "A Lattice-Based Ring Signcryption Scheme for Secure Communication in 6G-Enabled Vehicular Ad Hoc Networks Using Blockchain," *IEEE Transactions on Intelligent Transportation Systems*, vol. 26, no. 12, pp. 23007-23020, Dec. 2025.
- J.19. A. Yassine and **M. Shamim Hossain**, "Cooperative Distributed Multiagent System for Carbon-Aware IIoT in Smart Grids," *IEEE Internet of Things Journal*, vol. 12, no. 17, pp. 34863-34874, 1 Sept.1, 2025
- J.20. C. Dai, T. Zhu, S. Xiang, L. Xie, S. Garg and **M. Shamim Hossain**, "PSFL: Personalized Split Federated Learning Framework for Distributed Model Training in Intelligent Transportation Systems," *IEEE Transactions on Intelligent Transportation Systems*, vol. 26, no. 9, pp. 14110-14119, Sept. 2025.
- J.21. I. Ullah, I. Khalil, X. Bai, S. Garg, G. Kaddoum and **M. Shamim Hossain**, "An Ensemble-Based Hybrid Model for the Detection of Attacks in the Internet of Vehicular Things," *IEEE Transactions on Intelligent Transportation Systems*, vol. 26, no. 10, pp. 17914-17927, Oct. 2025
- J.22. **M. Shamim Hossain** and M. Shorfuzzaman, "Early Diabetic Retinopathy Cyber-Physical Detection System Using Attention-Guided Deep CNN Fusion," *IEEE Transactions on Network Science and Engineering*, vol. 12, no. 3, pp. 1898-1910, May-June 2025. [Q1]
- J.23. P. Bagchi, A. Bisht, A. K. Das, N. Saxena, and **M. Shamim Hossain**, "Designing Quantum-Safe Lattice-Based Multi-Authority CP-ABE Scheme for Blockchain-Enabled IoT-Based Consumer Healthcare Electronics," *IEEE Transactions on Consumer Electronics*, vol. 71, no. 2, pp. 4983-4994, May 2025.

- J.24. S. Mittal, M. Wazid, D. P. Singh, A. K. Das, and **M. Shamim Hossain**, “Deep learning ensemble approach for malware detection in Internet of Things utilizing Explainable Artificial Intelligence,” *Eng. Appl. Artif. Intell.* vol. 139, pp. 109560, 2025.
- J.25. C Su, J Wen, J Kang, Y Wang, Y Su, H Pan, Z Zhong, MS Hossain, “Hybrid RAG-empowered Multi-modal LLM for Secure Data Management in Internet of Medical Things: A Diffusion-based Contract Approach,” *IEEE Internet of Things Journal*, vol. 12, no. 10, pp. 13428-13440, 2025.
- J.26. O. H. Khater, A. J. Siddiqui, **M. Shamim Hossain** and A. El-Maleh, "EcoWeedNet: A Lightweight and Automated Weed Detection Method for Sustainable Next-Generation Agricultural Consumer Electronics," *IEEE Transactions on Consumer Electronics*, vol. 71, no. 4, pp. 12386-12397, Nov. 2025
- J.27. S. Prajapat, D. Gautam, P. Kumar, A. K. Das and **M. Shamim Hossain**, "Designing Lattice-Based Sequential Aggregate Signature Scheme for Securing Consumer Electronics-Centric IoMT," *IEEE Transactions on Consumer Electronics*, vol. 71, no. 4, pp. 11676-11685, Nov. 2025.
- J.28. J. Chen, Z. Yang, **M. Shamim Hossain**, and J. Kang, "Reliable Aerial-Computing-Assisted Digital Twin for Cognitive IoT: A Hierarchical Game Approach," *IEEE Internet of Things Journal*, vol. 12, no. 9, pp. 11286-11300, 2025
- J.29. A. Munir, A. J. Siddiqui, **M. Shamim Hossain**, and A. El-Maleh, "YOLO-RAW: Advancing UAV Detection With Robustness to Adverse Weather Conditions," *IEEE Transactions on Intelligent Transportation Systems*, vol. 26, no. 6, pp. 7857-7873, June 2025.
- J.30. S. Hosseini, A. Yassine, and **M. Shamim Hossain\***, "Optimizing Electric Vehicle Charging through an Artificial Intelligence Mechanism for Smart Transportation," *IEEE Internet of Things Journal*, vol. 11, no. 24, pp. 39069-39083, 15 Dec.15, 2024.
- J.31. K. -K. Tseng, Z. Yang, H. Tang, C. -M. Chen, S. Kumari and **M. Shamim Hossain**, "Smart IoE-Integrated Traffic Control: Dynamic Multisemantic Graph Attention and Reinforcement Learning for Optimizing Urban Mobility," *IEEE Internet of Things Journal*, vol. 12, no. 4, pp. 3589-3599, 15 Feb.15, 2025.
- J.32. Y. Peng and **M. Shamim Hossain**, "Cognitive Computing-Enabled Personalized Consumer Electronics Recommendations Using Economic Policy Uncertainty," *IEEE Consumer Electronics Magazine*, vol. 14, no. 2, pp. 26-34, March 2025.
- J.33. S. Mahato, M. S. Obaidat, S. Dutta, D. Giri, and **M. Shamim Hossain\***, "Enhancing Malicious Activity Detection in IoT-Enabled Network and IoMT Systems Through Metaheuristic Optimization and Machine Learning," *IEEE Internet of Things Journal*, Vol. 12, No. 1, 2025
- J.34. A. Amin, K. Hasan and **M. Shamim Hossain** “AI-Empowered MRI Analysis for Consumer Electronic Health,” *IEEE Transactions on Consumer Electronics*, vol. 71, no. 1, pp. 1423-1431, Feb. 2025.
- J.35. Z. Teimoori, A. Yassine and **M. Shamim Hossain**, "Empowering Consumer Electric Vehicle Mobile Charging Services With Secure Profit Optimization," *IEEE Transactions on Consumer Electronics*, vol. 71, no. 2, pp. 6348-6358, May 2025
- J.36. S. Mahato, M. S. Obaidat, S. Dutta, D. Giri and **M. Shamim Hossain**, "Enhancing Malicious Activity Detection in IoT-Enabled Network and IoMT Systems Through Meta-Heuristic Optimization and Machine Learning," *IEEE Internet of Things Journal*, vol. 11, no. 24, pp. 39958-39970, 15 Dec.15, 2024.
- J.37. **M. Shamim Hossain**, M. S. Islam, and M. A. Rahman, "A Cyber Range Framework for Emulating Secure and Private IT/OT Consumer Service Verticals Towards 6G," *IEEE Transactions on Consumer Electronics*, vol. 70, no. 2, pp. 4709-4716, May 2024,
- J.38. **M. Shamim Hossain**, Y. Hao, L. Hu, J. Liu, G. Wei, and C. Min, “Immersive Multimedia Service Caching in Edge Cloud with Renewable Energy,” *ACM Trans. Multimedia Comput. Commun. Appl.* vol. 20, no. 6, Article No.: 173. Pp. 1–23, 2024.
- J.39. S. Mittal, M. Wazid, D.P. Singh, AK Das, **M. Shamim Hossain**, “A deep learning ensemble approach for malware detection in Internet of Things utilizing Explainable Artificial Intelligence,” *Engineering Applications of Artificial Intelligence*, vol. 139, 2025 [IF: 7.5]
- J.40. Y. Peng and **M. Shamim Hossain\***, "Cognitive Computing-Enabled Personalized Consumer Electronics Recommendations Using Economic Policy Uncertainty," *IEEE Consumer Electronics Magazine*, vol. 14, no. 2, pp. 26-34, March 2025.
- J.41. Y. Shang, Z. Liu, J. Kang, **M. Shamim Hossain\***, and Y. Wu, “Adversarial Attacks on Vision-Language Model-Empowered Chatbots in Consumer Electronics,” *IEEE Transactions on Consumer Electronics*, vol. 70, no. 3, pp. 6075-6083, Aug. 2024.

- J.42. M. F. Saiyed, I. Al-Anbagi and **M. Shamim Hossain**, "Interactive and Explainable Optimized Learning for DDoS Detection in Consumer IoT Networks," *IEEE Transactions on Consumer Electronics*, vol. 71, no. 2, pp. 6839-6853, May 2025,
- J.43. K. Zhang, J. Sun, Q. Feng, X. Huang, C. Jiang, and **M. Shamim Hossain\***, "Joint Optimization of Fairness and Energy Efficiency in Zero-Trust Federated Learning for Consumer Internet of Things: A Lossy Communication Perspective," *IEEE Transactions on Consumer Electronics*, vol. 71, no. 1, pp. 1156-1166, Feb. 2025.
- J.44. US Varri, D Mallick, AK Das, **M. Shamim Hossain**, Y Park, JJPC Rodrigues, "TL-ABKS: Traceable and lightweight attribute-based keyword search in edge-cloud-assisted IoT environment," *Alexandria Engineering Journal*, vol. 107, 757-769, 2024.
- J.45. N. A. Alnajem, M. Binkhonain, and **M. Shamim Hossain\***, "Siamese Neural Networks Method for Semantic Requirements Similarity Detection," *IEEE Access*, vol. 12, pp. 140932-140947, 2024.
- J.46. S. Prajapat, P. Kumar, D. Kumar, A. K. Das, **M. Shamim Hossain\*** and J. J. P. C. Rodrigues, "Quantum Secure Authentication Scheme for Internet of Medical Things Using Blockchain," *IEEE Internet of Things Journal*, Vol. 11, No 23, 2024. doi: 10.1109/JIOT.2024.3448212
- J.47. J. Kang, J. Zhang, H. Yang, D. Ye, and **M. Shamim Hossain**, "When Metaverses Meet Vehicle Road Cooperation: Multiagent DRL-Based Stackelberg Game for Vehicular Twins Migration," *IEEE Internet of Things Journal*, vol. 11, no. 22, pp. 35928-35941, 2024.
- J.48. Y Wu, J Chen, T Lei, J Yu, **M. Shamim Hossain**, "Web 3.0 security: Backdoor attacks in federated learning-based automatic speaker verification systems in the 6G era," *Future Generation Computer Systems*, Vol. 160, pp. 433-441, November 2024.
- J.49. S Prajapat, G Thakur, P Kumar, AK Das, MS Hossain, "A blockchain-assisted privacy-preserving signature scheme using quantum teleportation for metaverse environment in Web 3.0," *Future Generation Computer Systems* 164, 107581, 2025.
- J.50. D. Ye, X. Huang, G. Cheng, and **M. Shamim Hossain**, "Multi-Dimensional Contract Design for Energy-Efficient Wireless Sensing in Consumer-Centric E-Commerce Systems," *IEEE Transactions on Consumer Electronics*, vol. 70, no. 4, pp. 6883-6891, Nov. 2024,
- J.51. C. Dai, S. Wei, S. Dai, S. Garg, G. Kaddoum, and **M. Shamim Hossain\***, "Federated Self-Supervised Learning Based on Prototypes Clustering Contrastive Learning for Internet-of-Vehicles Applications," *IEEE Internet of Things Journal*, Vol. 12, No. 4 2024.
- J.52. A. Umar, SA Hassan, H Jung, S Garg, G Kaddoum, **M. Shamim Hossain**, "HAC-SAGIN: High-altitude computing enabled space-air-ground integrated networks for 6G," *Computer Networks* 254, 110797.
- J.53. V. Kumar, Seema, K. Kumar, R. Prasad, K. Almutib and **M. Shamim Hossain**, "SEPCVN: Secure and Efficient Protocol for Cloud Vehicular Networking," *IEEE Access*, vol. 12, pp. 108657-108672, 2024
- J.54. X. Huang, Y. Zhang, Y. Qi, C. Huang, and **M. Shamim Hossain\***, "Energy-Efficient UAV Scheduling and Probabilistic Task Offloading for Digital Twin-Empowered Consumer Electronics Industry," *IEEE Transactions on Consumer Electronics*, vol. 70, no. 1, pp. 2145-2154, Feb. 2024.
- J.55. Z. Teimoori, A. Yassine and **M. Shamim Hossain\*** "Smart Vehicles Recommendation System for Artificial Intelligence-Enabled Communication," *IEEE Transactions on Consumer Electronics*, vol. 70, no. 1, pp. 3914-3925, Feb. 2024.
- J.56. Y. Wu, H Yang, X. Wang, H Yu, A. El Saddik, and **M. Shamim Hossain\***, "An effective Federated Learning system for Industrial IoT data streaming," *Alexandria Engineering Journal*, vol. 105, pp. 414-422, 2024.
- J.57. S. Aggarwal, I. Budhiraja, S Garg, G. Kaddoum, BJ Choi, MS Hossain, "A blockchain-based secure path planning in UAVs communication network," *Alexandria Engineering Journal*, vol. 113, pp. 451-460, 2024.
- J.58. A. Umar, SA Hassan, H Jung, S Garg, G Kaddoum, MS Hossain, "HAC-SAGIN: High-Altitude Computing enabled Space-Air-Ground Integrated Networks for 6G," *Computer Networks*, vol. 254, 2024, 110244.
- J.59. Y. Qi Y, and **M. Shamim Hossain**, "Semi-supervised Federated Learning for Digital Twin 6G-enabled IIoT: A Bayesian Estimated Approach," *Journal of Advanced Research*. 2024 Feb 28.
- J.60. J. Lyu, G. Wang, and **M. Shamim Hossain\***, "Iterative Temporal-Spatial Transformer-based Cardiac T1 Mapping MRI Reconstruction," *ACM Trans. Multimedia Comput. Commun. Appl.*, vol. 20, no. 6, Article No.: 179. Pp. 1-18, 2024.

- J.61. M. Al-Hawawreh, and **M. Shamim Hossain\***, "Federated Learning-assisted Distributed Intrusion Detection Using Mesh Satellite Nets for Autonomous Vehicle Protection", *IEEE Transactions on Consumer Electronics*, vol. 70, no. 1, pp. 854-862, Feb. 2024.
- J.62. S. Prajapat, P. Kumar, S. Kumar, A. K. Das, S. Shetty, and **M. Shamim Hossain\***, "Designing High-Performance Identity-Based Quantum Signature Protocol With Strong Security," *IEEE Access*, vol. 12, pp. 14647-14658, 2024.
- J.63. M. Al-Hawawreh, and **M. Shamim Hossain**, "Digital twin-driven secured edge-private cloud Industrial Internet of Things (IIoT) framework", *Journal of Network and Computer Applications*, vol. 226, June 2024, Article 103888.
- J.64. J. Lyu, X. Chen, S. A AlQahtani, and **M. Shamim Hossain\*** "Multi-modality MRI fusion with patch complementary pre-training for internet of medical things-based smart healthcare", *Information Fusion*, vol. 107, July 2024, 102342.
- J.65. T. Fu, L. Wang, S. Garg, **M. Shamim Hossain\***, Q. Yu, and H. Hu, "Adaptive signal light timing for regional traffic optimization based on graph convolutional network empowered traffic forecasting," *Information Fusion*, vol. 103, March 2024, 102072.
- J.66. J. Miao, Z. Wang, M. Wang, S.Garg, **M. Shamim Hossain**, and J. P.C. Rodrigues, "Secure and efficient communication approaches for Industry 5.0 in edge computing," *Computer Networks*, vol. 242, 2024, 110244,
- J.67. Y. Zhang, Y. Yu, M. Wang, M. Huang, and **M. Shamim Hossain\***, "Self-Adaptive Representation Learning Model for Multi-Modal Sentiment and Sarcasm Joint Analysis," *ACM Trans. Multimedia Comput. Commun. Appl.* vol. 20, no. 5, Article No.: 125. Pp. 1–17, 2024.
- J.68. S Roy, A Bisht, AK Das, S Shetty, **M. Shamim Hossain\***, "Age of correlated information-optimal dynamic policy scheduling for sustainable Green IoT devices: A multi-agent deep reinforcement learning approach," *Internet of Things*, vol. 26, July 2024, Article. 101141.
- J.69. A. Umar, S. A. Hassan, H. Jung, S. Garg, **M. Shamim Hossain**, M. Guizani, "Computation offloading in NOMA-MEC-enabled aerial-vehicular networks exploiting mmWave capabilities," *Computer Networks*, vol. 246, 2024, article 110335.
- J.70. J. Lyu, S. Yan, and **MM. Shamim Hossain\***, "DBGAN: Dual Branch Generative Adversarial Network for Multi-modal MRI Translation," *ACM Trans. Multimedia Comput. Commun. Appl.*, vol. 20, no. 8, pp. 1-22, 2024.
- J.71. P Consul, I Budhiraja, R Arora, S Garg, BJ Choi, **M. Shamim Hossain\***, "Federated reinforcement learning based task offloading approach for MEC-assisted WBAN-enabled IoMT," *Alexandria Engineering Journal*, vol. 86, pp. 56-66, Jan 2024.
- J.72. M. Moniruzzaman, A. Yassine and **M. Shamim Hossain**, "Energizing Charging Services for Next-Generation Consumers E-Mobility With Reinforcement Learning and Blockchain," *IEEE Transactions on Consumer Electronics*, vol. 70, no. 1, pp. 2269-2280, Feb. 2024.
- J.73. Y. Zhang, Y. He, R. Chen, P. Tiwari, A. E. Saddik and **M. Shamim Hossain\***, "A Dual Channel Cyber-Physical Transportation Network for Detecting Traffic Incidents and Driver Emotion," *IEEE Transactions on Consumer Electronics*, vol. 70, no. 1, pp. 1766-1774, Feb. 2024.
- J.74. S. He, C. Du and **M. Shamim Hossain\***, "6G-enabled Consumer Electronics Device Intrusion Detection with Federated Meta-Learning and Digital Twins in a Meta-Verse Environment," *IEEE Transactions on Consumer Electronics*, vol. 70, no. 1, pp. 3111-3119, Feb. 2024.
- J.75. J. Lyu, X. Zhao and **M. Shamim Hossain\***, "Temporal Super-Resolution in T1 Mapping: Pioneering Speed and Detail Preservation for Multimodal Consumer Health Data," *IEEE Transactions on Consumer Electronics*, doi: 10.1109/TCE.2024.3379482., 2024.
- J.76. L. Rong, Y. Ding, M. Wang, A. E. Saddik and **M. Shamim Hossain**, "A Multi-Modal ELMo Model for Image Sentiment Recognition of Consumer Data," *IEEE Transactions on Consumer Electronics*, vol. 70, no. 1, pp. 3697-3708, Feb. 2024.
- J.77. E Hassan, **M. Shamim Hossain\***, S Elmuogy, A Ghoneim, K AlMutib, A Saber, "Ultimate pose estimation: A comparative study," *Expert Systems* 41 (9), e13586, 2024.
- J.78. MY Ali, B Jiang, O Chowdhury, M Harun-Ar-Rashid, and **M. Shamim Hossain**, "Cosine modulated filter bank-based architecture for extracting and fusing saliency features," *Expert Systems*, vol. 41, no. 3, e13508

- J.79. **M. Shamim Hossain\***, and M. Shorfuzzaman, "MetaParkinson: A cyber-physical deep meta-learning framework for n-shot diagnosis and monitoring of Parkinson's patients, *IEEE Systems*, 2023, DOI: 10.1109/JSYST.2023.3308333. [IF: Q2]
- J.80. **M. Shamim Hossain\***, and M. Shorfuzzaman, "Noninvasive COVID-19 Screening Using Deep-Learning-Based Multilevel Fusion Model With an Attention Mechanism," *IEEE Open Journal of Instrumentation and Measurement*, vol. 2, pp. 1-12, 2023, Art no. 2500512. [Invited Paper](#)
- J.81. Z Yi, Y Qian, M Chen, SA Alqahtani, **M. Shamim Hossain** "Defending edge computing based metaverse AI against adversarial attacks," *Ad Hoc Networks and Control*, vol. 150, article no. 103263, Nov 2023. [IF: 4.8, Q2].
- J.82. A. Yassine, and **M. Shamim Hossain\***"Match Maximization of Vehicle-to-Vehicle Energy Charging With Double-Sided Auction," *IEEE Transactions on Intelligent Transportation Systems*, vol. 24, no. 11, pp. 13250-13259, Nov. 2023. [IF:8.5, Q1]
- J.83. J. Dong, A. Yassine, and **M. Shamim Hossain\***, "Multi-Agent Reinforcement Learning for Intelligent V2G Integration in Future Transportation Systems," *IEEE Transactions on Intelligent Transportation Systems*, vol. 24, no. 11, pp. 13250-13259, Nov. 2023. [IF:8.5, Q1]
- J.84. Y. Qi, and **M. Shamim Hossain\***, "Harnessing federated generative learning for green and sustainable Internet of Things," *Journal of Network and Computer Applications*, vol. 219, October 2023, 103725. [Q1]
- J.85. Y. Jiang, J. Liu, I. Humar, M. Chen, S. A. AlQahtani and **M. Shamim Hossain**, "Age-of-Information-Based Computation Offloading and Transmission Scheduling in Mobile-Edge-Computing-Enabled IoT Networks," *IEEE Internet of Things Journal*, vol. 10, no. 22, pp. 19782-19794, 15 Nov.15, 2023 [IF:10.6, Q1]
- J.86. E Hassan, **M. Shamim Hossain\***, A Saber, S Elmougy, A Ghoneim, G Muhammad, "A quantum convolutional network and ResNet (50)-based classification architecture for the MNIST medical dataset," *Biomedical Signal Processing and Control*, vol. 87, article no. 105560, March 2024. [IF: 5.1, Q2].
- J.87. T Fu, L Wang, S Garg, **M. Shamim Hossain\***, Q Yu, H Hu, "Adaptive signal light timing for regional traffic optimization based on graph convolutional network empowered traffic forecasting," *Information Fusion*, vol. 103, article no. 102072, Nov. 2023. [IF: 18.6, Q1]
- J.88. Z Zhen, X Wang, H Lin, S Garg, P Kumar, **M. Shamim Hossain**, "A dynamic state sharding blockchain architecture for scalable and secure crowdsourcing systems," *Journal of Network and Computer Applications*, vol. 222, February 2024, 103785, 2023. [Q1]
- J.89. Q. Abbas, S. A. Hassan, H. Jung and, **M. Shamim Hossain\***, "On Minimizing the Age of Information in NOMA-based Vehicular Networks using Markov Decision Process," *IEEE Transactions on Intelligent Transportation Systems*, vol. 24, no. 12, pp. 15557-15567, Dec. 2023. [IF: 8.5, Q1]
- J.90. C Tian, H Cao, J Xie, S Garg, JJPC Rodrigues, **M. Shamim Hossain**, "MADDPG-empowered slice reconfiguration approach for 5G multi-tier system," *Journal of Network and Computer Applications*, vol. 219, October 2023, 103725. [Q1]
- J.91. MV Madhavan, A Khamparia, D Gupta, S Pande, P Tiwari and **M. Shamim Hossain\***, "Res-CovNet: an internet of medical health things driven COVID-19 framework using transfer learning," *Neural Comput. Appl.* vol. 35, no. 19, pp: 13907-13920, 2023. [IF: 5.606, Q1].
- J.92. Y. Zhang, P. Tiwari, Q. Zheng, A. E. Saddik and **M. Shamim Hossain\***, "A Multimodal Coupled Graph Attention Network for Joint Traffic Event Detection and Sentiment Classification," *IEEE Transactions on Intelligent Transportation Systems*, vol. 24, no. 8, pp. 8542-8554, Aug. 2023. [IF:8.5, Q1]
- J.93. M. Al-Hawawreh, and **M. Shamim Hossain**, "A privacy-aware framework for detecting cyber-attacks on the internet of medical things systems using data fusion and quantum deep learning," *Information Fusion*, vol. 99, article no. 101889, Nov. 2023. [IF: 18.6, Q1]
- J.94. L. Dong, Z. Liu, K. Zhang, A. Yassine, and **M. Shamim Hossain**, "Affordable federated edge learning framework via efficient Shapley value estimation," *Future Generation Computer Systems*, vol. 147, pp. 339-349, 2023. [IF: 7.5, Q1]
- J.95. G. Muhammad, and **M. Shamim Hossain\***, "Light Deep Models for Cognitive Computing in Intelligent Transportation Systems," *IEEE Transactions on Intelligent Transportation Systems*, vol. 24, no. 1, pp. 1144-1152, Jan. 2023. [IF:10.6, Q1]
- J.96. G. Muhammad, **M. Shamim Hossain\*** and S. Garg, "Stacked Autoencoder-Based Intrusion Detection System to Combat Financial Fraudulent," *IEEE Internet of Things Journal*, vol. 10, no. 3, pp. 2071-2078, 1 Feb.1, 2023. [IF:10.6, Q1]
- J.97. M. A. Rahman, **M. Shamim Hossain\***, A. J. Showail, N. A. Alrajeh, and A. Ghoneim, "AI-Enabled IIoT for Live Smart City Event Monitoring," *IEEE Internet of Things Journal*, vol. 10, no. 4, pp. 2872-2880, 2023. [IF:10.6, Q1]

- J.98. H. Babbar, S. Rani, S. Garg, G. Kaddoum, M. Jalil Piran and **M. Shamim Hossain**, "A Secure Multi-layer Architecture for Software-Defined Space Information Networks (SDSINs)," *IEEE Consumer Electronics Magazine*, vol. 12, no. 2, pp. 64-72, March 2023. [IF: 3.789, Q1]
- J.99. Z. Lv, S. X. Yuxi Li, **M. Shamim Hossain**, and Abdulmotaleb El Saddik, "Building the Metaverse by Digital Twins at All Scales, State, Relation," *Virtual Reality & Intelligent Hardware*, vol. 4, no. 6, pp. 459-470, 2022.
- J.100. M. A. Rahman, and **M. Shamim Hossain\***, "A Deep Learning Assisted Software-Defined Security Architecture For 6G Wireless Networks – IIoT Perspective," *IEEE Wireless Communications*, vol. 29, no.2, pp. 1-8, April 2022. [IF: 12.9, Q1]
- J.101. A. Yassine and **M. Shamim Hossain\*** "COVID-19 Networking Demand: An Auction-based Mechanism for Automated Selection of Edge Computing Services," *IEEE Transactions on Network Science and Engineering*, vol. 9, no. 1, pp. 308-318, 1 Jan.-Feb. 2022 [IF: 6.6, Q1]
- J.102. M. A. Rahman and **M. Shamim Hossain\***, "Design of a Secure Internet of Artificially Intelligent Things in the 6G Era," *IEEE Internet of Things Magazine*, vol. 5, no. 2, pp. 49-54, June 2022.
- J.103. P. Singh, M. Masud, **M. Shamim Hossain\***, A. Kaur, G. Muhammad, and A. Ghoneim, "Privacy-Preserving Serverless Computing Using Federated Learning for Smart Grids," *IEEE Transactions on Industrial Informatics*, vol. 18, no. 11, pp. 7843-7852, Nov. 2022. [IF: 12.3, Q1] A. A. Raja, H. Pervaiz, S. A. Hassan, S. Garg, **M. Shamim Hossain\*** and M. Jalil Piran, "Coverage Analysis of mmWave and THz-Enabled Aerial and Terrestrial Heterogeneous Networks," *IEEE Transactions on Intelligent Transportation Systems*, vol. 23, no. 11, pp. 22478-22491, Nov. 2022. [IF: 8.5, Q1]
- J.104. H. Cao, S. Garg, G. Kaddoum, S. Singh and **M. Shamim Hossain\***, "Softwarized Resource Management and Allocation With Autonomous Awareness for 6G-Enabled Cooperative Intelligent Transportation Systems," *IEEE Transactions on Intelligent Transportation Systems*, vol. 23, no. 12, pp. 24662-24671, Dec. 2022 [IF: 8.5, Q1]
- J.105. F Yu, H Lin, X Wang, A Yassine, and **M. Shamim Hossain**, "Blockchain-empowered secure federated learning system: Architecture and applications, *Computer Communications*, vol. 196, pp.55-65, Dec. 2022.[IF: 6, Q1]
- J.106. S. Khezzr, A. Yassine, R. Benlamri and **M. Shamim Hossain\***, "An Edge Intelligent Blockchain-Based Reputation System for IIoT Data Ecosystem," *IEEE Transactions on Industrial Informatics*, vol. 18, no. 11, pp. 8346-8355, Nov. 2022 [IF: 12.3, Q1]
- J.107. M. S. Islam, M. M. Rahman, G. Muhammad and **M. Shamim Hossain\***, "Design of a Social Robot Interact With Artificial Intelligence by Versatile Control Systems," *IEEE Sensors Journal*, vol. 22, no. 18, pp. 17542-17549, Sept, 2022 [IF: Q1, 4.325].
- J.108. M. F. Ali, D. N. K. Jayakody, S. Garg, G. Kaddoum and **M. Shamim Hossain**, "Dual-Hop Mixed FSO-VLC Underwater Wireless Communication Link," *IEEE Transactions on Network and Service Management*, vol. 19, no. 3, pp. 3105-3120, Sept. 2022,
- J.109.Z. Teimoori, A. Yassine and **M. Shamim Hossain\***, "A Secure Cloudlet-based Charging Station Recommendation for Electric Vehicles Empowered by Federated Learning," *IEEE Transactions on Industrial Informatics*, vol. 18, no. 9, pp. 6464-6473, Sept. 2022. [IF:12.3, Q1]
- J.110. M. Woźniak, A. Sikora, A. Zielonka, K. Kaur, **M. Shamim Hossain** and M. Shorfuzzaman, "Heuristic Optimization of Multipulse Rectifier for Reduced Energy Consumption," *IEEE Transactions on Industrial Informatics*, vol. 18, no. 8, pp. 5515-5526, Aug. 2022. [IF: 12.3, Q1]
- J.111. X. Wang, S. Garg, H. Lin, G. Kaddoum, J. Hu and **M. Shamim Hossain**, "A Secure Data Aggregation Strategy in Edge Computing and Blockchain-Empowered Internet of Things," *IEEE Internet of Things Journal*, vol. 9, no. 16, pp. 14237-14246, 15 Aug.15, 2022. [IF:10.6, Q1]
- J.112. X. Huang, & **M. Shamim Hossain** et al., "Toward Efficient Data Trading in AI Enabled Reconfigurable Wireless Sensor Network using Contract and Game Theories," *IEEE Transactions on Network Science and Engineering*, vol. 9, no. 1, pp. 98-108, 1 Jan.-Feb. 2022. [IF: 6.6, Q1]
- J.113. H. Lin, S. Garg, J. Hu, X. Wang, M. J. Piran, **M. Shamim Hossain**, "Data fusion and transfer learning empowered granular trust evaluation for Internet of Things," *Information Fusion*, vol. 78, 149-157, 2022 [IF: 18.6, Q1]
- J.114. H. Zhu, P. Tiwari, A. Ghoneim and **M. Shamim Hossain\***, "A Collaborative AI-Enabled Pretrained Language Model for AIoT Domain Question Answering," *IEEE Transactions on Industrial Informatics*, vol. 18, no. 5, pp. 3387-3396, May 2022. [IF: 12.3, Q1]
- J.115. M. Shorfuzzaman, and **M. Shamim Hossain\***, "Predictive Analytics of Energy Usage by IoT-based Smart Home Appliances," *ACM Transactions on Internet Technology*, vol. 22, no. 2, Article 35, May 2022. [IF: 5.3, Q1]

- J.116. B. Bera, A. K. Das, S. Garg, M. Jalil Piran, and **M. Shamim Hossain**, "Access Control Protocol for Battlefield Surveillance in Drone-Assisted IoT Environment," *IEEE Internet of Things Journal*, vol. 9, no. 4, pp. 2708-2721, 15 Feb.15, 2022. [IF:10.6, Q1]
- J.117. M. Masud, G. S. Gaba, K. Choudhary, **M. Shamim Hossain**, M. F. Alhamid and G. Muhammad, "Lightweight and Anonymity-Preserving User Authentication Scheme for IoT-Based Healthcare," *IEEE Internet of Things Journal*, vol. 9, no. 4, pp. 2649-2656, 15 Feb.15, 2022 [IF:10.6, Q1]
- J.118. X. Wang, \_ **M. Shamim Hossain**, "QoS and Privacy-Aware Routing for 5G-Enabled Industrial Internet of Things: A Federated Reinforcement Learning Approach," *IEEE Transactions on Industrial Informatics*, vol. 18, no. 6, pp. 4189-4197, June 2022. [IF:12.3, Q1]
- J.119. S. Rani, D. Gupta, S. Garg, M. J. Piran and **M. Shamim Hossain**, "Consumer Electronic Devices: Evolution and Edge Security Solutions," *IEEE Consumer Electronics Magazine*, vol. 11, no. 2, pp. 15-20, March 2022. [IF: 3.789, Q1]
- J.120. F. Mehmood, N.K. Baloch, N.K., ...and **M. Shamim Hossain**, "An efficient and cost-effective application mapping for network-on-chip using Andean condor algorithm," *Journal of Network and Computer Applications*, vol. 200, April 2022, p.103319.
- J.121. X. Wang, \_\_\_\_\_, **M. Shamim Hossain** "Toward Accurate Anomaly Detection in Industrial Internet of Things Using Hierarchical Federated Learning," *IEEE Internet of Things Journal*, vol. 9, no. 10, pp. 7110-7119, May 2022 [IF:10.6, Q1]
- J.122. Q. Abbas, S. A. Hassan, H. Jung and, **M. Shamim Hossain**\*, "On Minimizing the Age of Information in NOMA-based Vehicular Networks using Markov Decision Process," *IEEE Transactions on Intelligent Transportation Systems*, vol. 24, no. 12, pp. 15557-15567, Dec. 2023. [IF: 8.5, Q1]
- J.123. S. I. Nafisah, G. Muhammad, **M. Shamim Hossain**, and SA AlQahtani, "A comparative evaluation between convolutional neural networks and vision transformers for COVID-19 detection," *Mathematics*, vol. 11, no. 6, 1489, 2023.
- J.124. T. Jabeen, I. Jabeen, H. Ashraf, N.Z. Jhanjhi, A. Yassine A, **M. Shamim Hossain**\*, "An Intelligent Healthcare System Using IoT in Wireless Sensor Network. *Sensors*, vol 23, no. 11, article 5055, 2023.
- J.125. M. F. Ali, D. N. K. Jayakody, S. Garg, G. Kaddoum and **M. Shamim Hossain**, "Dual-Hop Mixed FSO-VLC Underwater Wireless Communication Link," *IEEE Transactions on Network and Service Management*, 2022, vol. 19, no. 3, pp. 3105-3120, Sept. 2022. [IF: 3.789, Q1]
- J.126. M. Masud, A.E. Rashed, and **M. Shamim Hossain**, "Convolutional neural network-based models for diagnosis of breast cancer," *Neural Comput & Applic*, vol. 34, 11383–11394, 2022. [IF: 5.606, Q1].
- J.127. G. Muhammad and **M. Shamim Hossain**\*, "Deep-Reinforcement-Learning-Based Sustainable Energy Distribution for Wireless Communication," *IEEE Wireless Communications*, vol. 28, no. 6, pp. 42-48, December 2021 [IF: 12.9, Q1]
- J.128. M. Shorfuzzaman, **M. Shamim Hossain**\*, and A. E. Saddik, "An Explainable Deep Learning Ensemble Model for Robust Diagnosis of Diabetic Retinopathy Grading," *ACM Trans. Multimedia Comput. Commun. Appl. (ACM TOMM)*, 17, 3s, Article 113 (October 2021), 24 pages. DOI: 10.1145/3469841. [IF: 5.1, Q1]
- J.129. M. A Rahman, **M. Shamim Hossain**\*, N. A. Alrajeh, and F. Alsolami, "Adversarial Examples—Security Threats to COVID-19 Deep Learning Systems in Medical IoT Devices," *IEEE Internet of Things Journal*, vol. 8, no. 12, pp. 9603-9610, 15 June15, 2021. [IF:10.6, Q1]
- J.130. G. Muhammad, **M. Shamim Hossain**\*, and N. Kumar, "EEG-Based Pathology Detection for Home Health Monitoring," *IEEE Journal on Selected Areas in Communications*, vol. 39, no. 2, pp. 603-610, Feb. 2021. [IF: 9.144, Q1]
- J.131. Y. Liu, **M. Shamim Hossain et al.**, "Deep Anomaly Detection for Time-series Data in Industrial IoT: A Communication-Efficient On-device Federated Learning Approach," *IEEE Internet of Things Journal*, vol. 8, no. 8, pp. 6348-6358, April 2021 [IF:10.6, Q1] **IEEE Communications Society Outstanding Paper Award 2024**
- J.132. D.P. Tobón, and **M. Shamim Hossain et al.**, "Deep learning in multimedia healthcare applications: a review," *Multimedia Systems*, vol. 28, pp. 1465–1479, 2022.
- J.133. Y. Miao, H. Wang, H. Lu, **M. Shamim Hossain**, and G. Muhammad "Blockchain for Secure-GaS: Blockchain-Powered Secure Natural Gas IoT System With AI-Enabled Gas Prediction and Transaction in Smart City," *IEEE Internet of Things Journal*, vol. 8, no. 8, pp. 6305-6312, April 15, 2021 [IF:10.6, Q1]
- J.134. S. U. Amin and **M. Shamim Hossain**, "Edge Intelligence and Internet of Things in Healthcare: A Survey," *IEEE Access*, vol. 9, pp. 45-59, 2021. [IF 3.367, Q2]
- J.135. H. Wang, D. P. Tobón V., **M. Shamim Hossain**\*, and A. E. Saddik, "Deep Learning (DL)-Enabled System for Emotional Big Data," *IEEE Access*, vol. 9, pp. 116073-116082, 2021 [IF 3.367, Q2]
- J.136. G. Muhammad, and **M. Shamim Hossain**\*, "COVID-19 and Non-COVID-19 Classification using Multi-layers Fusion From Lung Ultrasound Images," *Information Fusion*, vol. 72, pp. 80-88, 2021 [IF: 18.6, Q1]

- J.137. G. Muhammad and **M. Shamim Hossain\***, "A Deep-Learning-Based Edge-Centric COVID-19-Like Pandemic Screening and Diagnosis System within a B5G Framework Using Blockchain," *IEEE Network*, vol. 35, no. 2, pp. 74-81, March/April 2021. [IF: 9.3, Q1]
- J.138. M. Shorfuzzaman, **M. Shamim Hossain\***, "MetaCOVID: A Siamese neural network framework with contrastive loss for n-shot diagnosis of COVID-19 patients," *Pattern Recognition*, vol. 113, no. 2021, pp. 107700, DOI: 10.1016/j.patcog.2020.107700. [Q1, 7.196]
- J.139. M. A. Rahman, and **M. Shamim Hossain**, "An Internet-of-Medical-Things-Enabled Edge Computing Framework for Tackling COVID-19" *IEEE Internet of Things Journal* vol. 8, no. 21, pp. 15847-15854, 1 Nov.1, 2021 [IF:10.6, Q1]
- J.140. H. Lin, S. Garg, J. Hu, X. Wang, M. Jalil Piran and **M. Shamim Hossain**, "Privacy-Enhanced Data Fusion for COVID-19 Applications in Intelligent Internet of Medical Things," *IEEE Internet of Things Journal*, vol. 8, no. 21, pp. 15683-15693, Nov., 2021. [IF:10.6, Q1]
- J.141. M. Al-Hawawreh, N. Moustafa, S. Garg and **M. Shamim Hossain**, "Deep Learning-Enabled Threat Intelligence Scheme in the Internet of Things Networks," *IEEE Transactions on Network Science and Engineering*, vol. 8, no. 4, pp. 2968-2981, 1 Oct.-Dec. 2021 [IF: 6.6, Q1]
- J.142. R. W. Liu, J. Nie, S. Garg, Z. Xiong, Y. Zhang and **M. Shamim Hossain**, "Data-Driven Trajectory Quality Improvement for Promoting Intelligent Vessel Traffic Services in 6G-Enabled Maritime IoT Systems," *IEEE Internet of Things Journal*, vol. 8, no. 7, pp. 5374-5385, 1 April 1, 2021. [IF:10.6, Q1]
- J.143. G. Wang, J. Yin, **M. Shamim Hossain\*** and G. Muhammad, "Incentive Mechanism for Collaborative Distributed Learning in Artificial Intelligence of Things," *Future Generation Computer Systems*, vol. 125, pp. 376-384, Dec 2021 [IF: 7.5, Q1]
- J.144. G. Muhammad, and **M. Shamim Hossain\***, "Emotion Recognition for Cognitive Edge Computing Using Deep Learning," *IEEE Internet of Things Journal*, vol. 8, no. 23, pp. 16894-16901, Dec.1, 2021. [IF:10.6, Q1]
- J.145. Z. Lv, L. Qiao, and **M. Shamim Hossain**, and B. J. Choi, "Analysis of Using Blockchain to Protect the Privacy of Drone Big Data," *IEEE Network*, vol. 35, no.1, pp. 44-49, Jan/Feb 2021 [IF: 9.3, Q1]
- J.146. M. A Rahman, **M. Shamim Hossain\***, and Nabil A. Alrajeh, "A Multimodal, Multimedia Point-of-Care Deep Learning Framework for COVID-19 Diagnosis," *ACM Transactions on Multimedia Computing, Communications, and Applications*, vol.17, no. 1s, pp.1-24, January 2021, Article No. 18 [IF: 5.1, Q1].
- J.147. A. Singh, A. Dhillon, N. Kumar, **M. Shamim Hossain\***, G. Muhammad, and Manoj Kumar, "eDiaPredict: An ensemble-based framework for Diabetes Prediction," *ACM Trans. Multimedia Comput. Commun. Appl. (ACM TOMM)*, vol. 17, no. 2s, Article No. 66, (May 2021), 26 pages. [IF: 5.1, Q1]
- J.148. Yazhou Zhang, P. Tiwari, N. AlNajem, and **M. Shamim Hossain\***, "Affective Interaction: Attentive Representation Learning for Multi-Modal Sentiment Classification" *ACM Trans. Multimedia Comput. Commun. Appl. (ACM TOMM)*, vol. 18, no. 3, Article No. 138, 23 pages, <https://doi.org/10.1145/3527175>. [IF: 5.2, Q1]
- J.149. M. Masud, **M. Shamim Hossain\***, et al. "Pre-trained Convolutional Neural Networks for Breast Cancer Detection using Ultrasound Image," *ACM Trans. Internet Technol.* vol. 21, no. 4, Article 85 (June 2021), 17 pages. [IF 1.598, Q1]
- J.150. K. Wang, C-M. Chen, **M. Shamim Hossain\*** et al., "Transfer reinforcement learning-based road object detection in next-generation IoT domain," *Computer Networks*, vol. 193, No. (2021), pp.108078, July 2021. [IF: 5.6, Q1]
- J.151. MI Khalil, NZ Jhanjhi, M Humayun, SK Sivanesan, M Masud, **M. Shamim Hossain\***, "Hybrid smart grid with sustainable energy efficient resources for smart cities," *Sustainable Energy Technologies and Assessments*, vol. 46, pp. 101211, 2021 [IF: 3.427, Q2]
- J.152. X. Jian, P. Leng, Y. Wang, M. Alrashoud and **M. Shamim Hossain\***, "Blockchain-Empowered Trusted Networking for Unmanned Aerial Vehicles in the B5G Era," *IEEE Network*, vol. 35, no. 1, pp. 72-77, March/April 2021 [IF: 9.3, Q1]
- J.153. A. K. Jaiswala, P. Tiwarib, and **M. Shamim Hossain\***, "Entity-aware capsule network for multi-class classification of big data: A deep learning approach" *Future Generation Computer Systems*, vol. 117, pp. 1-11, April 2021. [IF: 7.5, Q1]
- J.154. Y.Qia, **M. Shamim Hossain\***, J. Nie, and X. Li, "Privacy-preserving blockchain-based federated learning for traffic flow prediction ," *Future Generation Computer Systems*, vol. 117, pp. 328-337, April 2021. [IF: 7.5, Q1]
- J.155. S. Messaoud, A. Bradai, O. B. Ahmed, P. T. A. Quang, M. Atri and **M. Shamim Hossain**, "Deep Federated Q-Learning-Based Network Slicing for Industrial IoT," *IEEE Transactions on Industrial Informatics*, vol. 17, no. 8, pp. 5572-5582, Aug. 2021 [IF: 12.3, Q1]

- J.156. M. Wazid, B. Bera, A. K. Das, S. Garg, D. Niyato and **M. Shamim Hossain**, "Secure Communication Framework for Blockchain-Based Internet of Drones-Enabled Aerial Computing Deployment," *IEEE Internet of Things Magazine*, vol. 4, no. 3, pp. 120-126, September 2021.
- J.157. A. Makkar, S. Garg, N. Kumar, **M. Shamim Hossain**, and A. Ghoneim, "An Efficient Spam Detection Technique for IoT Devices Using Machine Learning," *IEEE Trans. Industrial Informatics*, vol. 17, no. 2, pp. 1-10, pp. 903-912, Feb. 2021. [IF: 12.3, Q1]
- J.158. M.M. Hassan, S.Ullah, and **M. Shamim Hossain**. et al. "An end-to-end deep learning model for human activity recognition from highly sparse body sensor data in Internet of Medical Things environment," *J. Supercomput.* Vol. 77, no. 3, pp: 2237-2250, 2021 [IF: 2.469, Q2]
- J.159. H. Lin, S. Garg, G. Kaddoum and **M. Shamim Hossain**, "Blockchain and Deep Reinforcement Learning Empowered Spatial Crowdsourcing in Software-Defined Internet of Vehicles," *IEEE Transactions on Intelligent Transportation Systems*, vol. 22, no. 6, pp. 3755-3764, June 2021, [IF: 8.5, Q1]
- J.160. M. A. Rahman, **M. Shamim Hossain\***, A. J. Showail, N.I A. Alrajeh, and Mohammed F. Alhamid, "A secure, private, and explainable IoHT framework to support sustainable health monitoring in a smart city," *Sustainable Cities and Society*, vol. 72, no. 2021, article no. 103083, 2021. [IF: 7.587, Q1]
- J.161. Z. Li, M. Alazab, S. Garg and **M. Shamim Hossain**, "PriParkRec: Privacy-Preserving Decentralized Parking Recommendation Service," *IEEE Transactions on Vehicular Technology*, vol. 70, no. 5, pp. 4037-4050, May 2021. doi: 10.1109/TVT.2021.3074820. [IF: 6.239, Q1]
- J.162. P. Singh, M. Masud, **M. Shamim Hossain\***, and A. Kaur, "Blockchain and homomorphic encryption-based privacy-preserving data aggregation model in smart grid," *Computers & Electrical Engineering*, vol. 93, pp. 107209, 2021. [IF: 2.663, Q2]
- J.163. Q Yu, W Xiao, S Jiang, MF Alhamid, G. Muhammad, **M. Shamim Hossain\***, "Emotion-aware mobile edge computing system: A case study," *Computers & Electrical Engineering*, vol. 93, pp. 107209, 2021. [IF: 2.663, Q2]
- J.164. Q Yu, W Xiao, S Jiang, MF Alhamid, G. Muhammad, **M. Shamim Hossain\***, "Emotion-aware mobile edge computing system: A case study," *Computers & Electrical Engineering*, vol. 93, pp. 107209, 2021. [IF: 2.663, Q2]
- J.165. VK Rathi, NK Rajput, S Mishra, BA Grover, P Tiwari and, **M. Shamim Hossain\***, "An edge AI-enabled IoT healthcare monitoring system for smart cities," *Computers & Electrical Engineering*, vol. 96, pp. 107524, 2021. [IF: 2.663, Q2]
- J.166. G. Hu, Z. Xiang, Y. Zhang, **M. Shamim Hossain**, "DLIFT: A deep-learning-based intelligent fund transaction system for financial Internet of Things," *Concurrency and Computation: Practice and Experience*, vol. 33, no. 22, pp. e5982, 2021.
- J.167. M. Masud, G.S. Gaba, K. Choudhary, **M. Shamim Hossain\*** et al., "A robust and lightweight secure access scheme for cloud-based E-healthcare services," *Peer-to-Peer Netw. Appl.* 2021, DOI: 10.1007/s12083-021-01162-x. [IF: 3.307, Q2]
- J.168. P. Singh, M. Masud, **M. Shamim Hossain\***, A. Kaur, "Cross-Domain Secure Data Sharing using Blockchain for Industrial IoT," *Journal of Parallel and Distributed Computing*, vol. 56, pp. 176-184, 2021. DOI: 10.1016/j.jpdc.2021.05.007 [IF. 3.734, Q1]
- J.169. **M. Shamim Hossain**, N. Guizani, A. Rayes, V. C. M. Leung, H. Wang and C. -X. Wang, "Guest Editorial: AI-Enabled Networking Technologies for Tackling Epidemic Diseases," *IEEE Network*, vol. 35, no. 3, pp. 12-13, May/June 2021. [IF: 9.3, Q1]
- J.170. H. Lin, S. Garg, J. Hu, G. Kaddoum, M. Peng and **M. Shamim Hossain**, "A Blockchain-based Secure Data Aggregation Strategy using 6G-enabled NIB for Industrial Applications," *IEEE Transactions on Industrial Informatics*, vol. 17, no. 10, pp. 7204-7212, Oct. 2021. [IF: 12.3, Q1]
- J.171. Y. Zhang, Y. Li, R. Wang, **M. Shamim Hossain** and H. Lu, "Multi-Aspect Aware Session-Based Recommendation for Intelligent Transportation Services," *IEEE Transactions on Intelligent Transportation Systems*, vol. 22, no. 7, pp. 4696-4705, July 2021 [IF:8.5, Q1]
- J.172. K. Wang, X. Liu, C. -M. Chen, S. Kumari, M. Shojafar and **M. Shamim Hossain**, "Voice-Transfer Attacking on Industrial Voice Control Systems in 5G-Aided IIoT Domain," *IEEE Transactions on Industrial Informatics*, vol. 17, no. 10, pp. 7085-7092, Oct. 2021, doi: 10.1109/TII.2020.3023677 [IF: 12.3, Q1]
- J.173. Z. Yu, J. Hu, G. Min, Z. Zhao, W. Miao and **M. Shamim Hossain**, "Mobility-Aware Proactive Edge Caching for Connected Vehicles Using Federated Learning," *IEEE Transactions on Intelligent Transportation Systems*, 2021. vol. 22, no. 8, pp. 5341-5351, Aug. 2021. doi: 10.1109/TITS.2020.3017474 [IF: 8.5, Q1]
- J.174. S. T. Muntaha, S. A. Hassan, H. Jung and **M. Shamim Hossain**, "Energy Efficiency and Hover Time Optimization in UAV-Based HetNets," *IEEE Transactions on Intelligent Transportation Systems*, vol. 22, no. 8, pp. 5103-5111, Aug. 2021. [IF: 8.5, Q1]

- J.175. S. Alam, M. Shuaib, W. Z. Khan, S. Garg, G. Kaddoum, **M. Shamim Hossain**, and Y. B. Zikria, "Blockchain-based Initiatives: Current state and challenges," *Computer Networks*, vol. 198, no. 2021, pp. 108395, Oct. 2021 [IF: 5.6, Q1]
- J.176. G. Muhammad, **M. Shamim Hossain**, and A. Yassine, "Tree-Based Deep Networks for Edge Devices," *IEEE Trans. Industrial Informatics*, vol. 16, no. 3, pp. 2022-2028, March 2020. [IF: 12.32, Q1]
- J.177. M. Masud, G. Muhammad, H. Alhumyani, O. Cheikhrouhou, and **M. Shamim Hossain**, "Deep Learning-based Intelligent Face Recognition in IoT-Cloud Environment," *Computer Communications*, vol. 152, no. 2020, pp. 215-222, February 2020 [IF: 6, Q1]
- J.178. A. Ghoneim, G. Muhammad, and **M. Shamim Hossain**, "Cervical Cancer Classification Using Convolutional Neural Networks and Extreme Learning Machines," *Future Generation Computer Systems*, vol. 102, no. 2020, pp. 643-649, January 2020 [IF: 7.5, Q1]
- J.179. M. A. Rahman, **M. Shamim Hossain\***, M. S. Islam, N. A. Alrajeh and G. Muhammad, "Secure and Provenance Enhanced Internet of Health Things Framework: A Blockchain Managed Federated Learning Approach," *IEEE Access*, vol. 8, pp. 205071-205087, 2020. [IF: 3.367, Q2].
- J.180. X. Wang, S. Garg, H. Lin, G. Kaddoum, J. Hu, and **M. Shamim Hossain\***, "PPCS: An Intelligent Privacy-Preserving Mobile-Edge Crowdsensing Strategy for Industrial IoT," *IEEE Internet of Things Journal*, vol. 8, no. 13, pp. 10288-10298, 1 July 2021. [IF:10.6, Q1]
- J.181. M. Shorfuzzaman, **M. Shamim Hossain\***, Mohammed F. Alhamid, "Towards the sustainable development of smart cities through mass video surveillance: A response to the COVID-19 pandemic," *Sustainable Cities and Society*, vol. 64, no. 2021, article no. 102582, 2021. [IF: 7.587, Q1]
- J.182. W. Xiaoding, S. Garg, H. Lin, M. Jalilpiran, J. Hu, and **M. Shamim Hossain**, "Enabling Secure Authentication in Industrial IoT with Transfer Learning empowered Blockchain," *IEEE Transactions on Industrial Informatics*, vol. 17, no. 11, pp. 7725-7733, Nov. 2021 [IF: 12.3, Q1]
- J.183. **M. Shamim Hossain**, G. Muhammad, and N. Guizani, "Explainable AI and Mass Surveillance System-Based Healthcare Framework to Combat COVID-19 Like Pandemics," *IEEE Network*, vol. 34, no. 4, pp. 126-132, July/August 2020. [IF: 9.3, Q1]
- J.184. **M. Shamim Hossain\***, and G. Muhammad, "Deep Learning Based Pathology Detection for Smart Connected Healthcares", *IEEE Network*, vol. 34, no. 6, pp. 120-125, November/December 2020. [IF: 9.3, Q1]
- J.185. M. A. Rahman, **M. Shamim Hossain\***, N. A. Alrajeh and N. Guizani, "5G and Explainable Deep Learning Assisted Healthcare Vertical at the Edge: COVID-19 Perspective," *IEEE Network*, vol. 34, no. 4, pp. 98-105, July/August 2020 [IF: 9.3, Q1]
- J.186. **M. Shamim Hossain\***, G. Muhammad, "A deep tree model-based radio resource distribution for 5G networks," *IEEE Wireless Communications*, vol. 27, no.1, pp. 62-67, Feb. 2020. [IF: 12.9, Q1]
- J.187. M. A. Rahman, **M. Shamim Hossain\***, M. M. Rashid, S. Barnes and E. Hassanain, "IoEV-Chain: A 5G-Based Secure Inter-Connected Mobility Framework for the Internet of Electric Vehicles," *IEEE Network*, vol. 34, no. 5, pp. 190-197, September/October 2020 [IF: 9.3, Q1]
- J.188. **M. Shamim Hossain\***, M. A Rahman, and G. Muhammad, "Towards Energy-Aware Cloud-Oriented Cyber-Physical Therapy System," *Future Generation Computer Systems*, vol. 105, no. 2020, pp. 800-813, 2020. [IF: 7.5, Q1]
- J.189. B. Ahmed, M. Usama, K. Hwang, **M. Shamim Hossain**, "Discriminative Feature Learning for Skin Disease Classification using Deep Convolutional Neural Network," *IEEE Access*, vol. 8, no.1, pp. 39025-39033, 2020. [IF: 3.367, Q2].
- J.190. W-C. Chien, S.Y. Huang, C-F. Lai, **M. Shamim Hossain**, G. Muhammad, "Multiple Contents Offloading Mechanism in AI-enabled Opportunistic Networks," *Computer Communications*, vol. 155, no. 2020, pp. 93-103, 2020. [IF: 6, Q1]
- J.191. Y. Qian, Y. Jiang, L. Hu, **M. Shamim Hossain**, M. Alhamadi, "Blockchain-Based Privacy-Aware Content Caching in Cognitive Internet of Vehicles," *IEEE Network*, vol. 34, no. 2, pp. 46-51, March/April 2020 [IF: 9.3, Q1]
- J.192. Q. Liu, M. Li, J Yang, J. Lv, K. Hwang, **M. Shamim Hossain**, and G. Muhammad, "Joint power and time allocation in energy harvesting of UAV operating system," *Computer Communications*, vol. 150, no. 2020, pp. 811-817, 15 January 2020 [IF: 6, Q1]
- J.193. L. Hu, Y. Miao, Jun, J. Yang, A. Ghoneim, and **M. Shamim Hossain**, "IF-RANs: Intelligent Traffic Prediction and Cognitive Caching toward Fog-Computing-Based Radio Access Networks," *IEEE Wireless Communications*, vol. 27, no. 2, pp. 29-35, April 2020. [IF: 12.9, Q1]
- J.194. Y Jiang, W Li, **M. Shamim Hossain\***, M Chen, A. Alelaiwi, M Al-Hammadi, "A snapshot research and implementation of multimodal information fusion for data-driven emotion recognition," *Information Fusion*, vol. 53, pp. 209-221, Jan 2020 [IF: 18.6, Q1]

- J.195. G. Wu, M. Li, A. Ghoneim, M. Al-Rakhami, and **M. Shamim Hossain**, "Intelligent Task Prediction and Computation Offloading Based on Mobile-Edge Cloud Computing," *Future Generation Computer Systems*, vol. 102, pp. 925-931, January 2020 [IF: 7.5, Q1]
- J.196. L. Hu, J Yang, K. Hwan, **M. Shamim Hossain**, and G. Muhammad, "Follow Me Robot-Mind: Cloud brain based personalized robot service with migration," *Future Generation Computer Systems*, vol. 107, no. 2020, pp. 324-332, June 2020. [IF: 7.5, Q1]
- J.197. Y Qian, Y Jiang, **M. Shamim Hossain\***, L Hu, G Muhammad, SU Amin, "Privacy-preserving based task allocation with mobile edge clouds" *Information Sciences*, vol. 507, no. 2020, pp. 288-297, January 2020. [IF: 6.795, Q1]
- J.198. M. Al-Hammadi, G. Muhammad, W. Abdul, M. Alsulaiman, and **M. Shamim Hossain\***, "Hand Gesture Recognition Using 3D-CNN Model," *IEEE Consumer Electronics Magazine*, vol. 9, no.1, pp. 95-101, Jan 2020 [IF: 3.789, Q1]
- J.199. A. Yassine, **M. Shamim Hossain\***, G. Muhammad, and M. Guizani, "Cloudlet-Based Intelligent Auctioning Agents for Truthful Autonomous Electric Vehicles Energy Crowdsourcing," *IEEE Trans. Vehicular Technology*, vol. 69, no.5, pp. 5457-5466, May 2020 [IF: 6.239, Q1]
- J.200. A. K. Sangaiah, J. Wang, **M. Shamim Hossain**, and A. Ghoneim, "Energy-Aware Green Adversary Model for Cyberphysical Security in Industrial System," *IEEE Trans. Industrial Informatics*, vol. 16, no.5, pp. 3322 – 3329, May 2020 [IF: 12.3, Q1]
- J.201. M. Usama, B. Ahmed, **M. Shamim Hossain\***, G. Muhammad "Self-attention based recurrent convolutional neural network for disease prediction using healthcare data," *Computer Methods and Programs in Biomedicine*, vol. 190, July 2020, 105191. 2020. [IF: 3.632, Q1]
- J.202. A.S. Tolba, and **M. Shamim Hossain\*** et al., "Towards Cognitive Support for Automated Defect Detection," *Neural Computing and Applications*, vol. 32, no.9, pp. 4325-4333, 2020. [IF: 5.606, Q1].
- J.203. F. Asharindavida, and **M. Shamim Hossain\*** et al. "A forecasting tool for prediction of epileptic seizures using a machine learning approach," *Concurrency and Computation: Practice and Experience*, vol. 32, no. 1, Jan 2020. DOI: 10.1002/cpe.5111. [IF: 1.536, Q3]
- J.204. Y. Miao, Y. Jiang, **M. Shamim Hossain\***, Mohammed F. Alhamid, and S.U. Amin, "Learning for Smart Edge: Cognitive Learning-Based Computation Offloading," *Mobile Networks and Applications*, vol. 25, no. 3, pp. 1016-1022, 2020. [IF: 3.426, Q2]
- J.205. M. Rawashdeh, M. GH. Al Zamil, S. Samarah, **M. Shamim Hossain\***, G. Muhammad, "A knowledge-driven approach for activity recognition in smart homes based on activity profiling," *Future Generation Computer Systems*, vol. 107, no. 2020, pp. 924-941, June 2020. [IF: 7.5, Q1]
- J.206. M. Usama, B. Ahmed, G. Muhammad, **M. Shamim Hossain**, "Attention-based sentiment analysis using convolutional and recurrent neural network," *Future Generation Computer Systems*, vol. 113, No. 2020, pp. 571-578, December 2020 [IF: 7.5, Q1]
- J.207. D. V. Medhane, A. K. Sangaiah, **M. Shamim Hossain**, G. Muhammad and J. Wang, "Blockchain-Enabled Distributed Security Framework for Next-Generation IoT: An Edge Cloud and Software-Defined Network-Integrated Approach," *IEEE Internet of Things Journal*, vol. 7, no. 7, pp. 6143-6149, July 2020, [IF: 9.936, Q1]
- J.208. J. Yang, N. Guizani, L. Hu, A. Ghoneim, **M. Shamim Hossain**, "Smart Autonomous Moving Platforms," *IEEE Network*, vol. 34, no. 3, pp. 116-123, May/June 2020. [IF: 9.3, Q1]
- J.209. Y. Hou, S. Garg, L. Hui, D. N. K. Jayakody, R. Jin and **M. Shamim Hossain**, "A Data Security Enhanced Access Control Mechanism in Mobile Edge Computing," *IEEE Access*, vol. 8, pp. 136119-136130, 2020 [IF: 3.367, Q2].
- J.210. L. Luan, W. Xiao, K. Hwang, **M. Shamim Hossain**, G. Muhammad and **M. Shamim Hossain**, "MEMO Box: Health Assistant for Depression With Medicine Carrier and Exercise Adjustment Driven by Edge Computing," *IEEE Access*, vol. 8, pp. 195568-195577, 2020[IF: 3.367, Q2].
- J.211. M. Peng, S. Garg, X. Wang, A. Bradai, H. Lin and **M. Shamim Hossain**, "Learning-Based IoT Data Aggregation for Disaster Scenarios," *IEEE Access*, vol. 8, pp. 128490-128497, 2020 [IF: 3.367, Q2].
- J.212. S. Chavhan, D. Gupta, S. Garg, A. Khanna, B. J. Choi and **M. Shamim Hossain\***, "Privacy and Security Management in Intelligent Transportation System," *IEEE Access*, vol. 8, pp. 148677-148688, 2020 [IF: 3.367, Q2].
- J.213. S. Ibrahim, **M. Shamim Hossain** et al., "Framework for Efficient Medical Image Encryption Using Dynamic S-Boxes and Chaotic Maps," *IEEE Access*, vol. 8, pp. 160433-160449, 2020. [IF: 3.367, Q2].
- J.214. G. Rathee, S. Garg, G. Kaddoum, B. J. Choi and **M. Shamim Hossain**, "Trusted Computation Using ABM and PBM Decision Models for ITS," *IEEE Access*, vol. 8, pp. 195788-195798, 2020 [IF: 3.367, Q2].
- J.215. G. Rathee, S. Garg, G. Kaddoum, B. J. Choi and **M. Shamim Hossain**, "Trusted Orchestration for Smart Decision-Making in Internet of Vehicles," *IEEE Access*, vol. 8, pp. 157427-157436, 2020. [IF: 3.367, Q2].

- J.216. G. Muhammad, and **M. Shamim Hossain\*** "Stacked Autoencoder-based Intrusion Detection System to Combat Financial Fraudulent," *IEEE Internet of Things Journal*, DOI: 10.1109/JIOT.2020.30411842020. [IF:10.6, Q1]
- J.217. \_\_\_\_\_, **M. Shamim Hossain\***, "Energy-Efficient Strategy for Reducing Outage in Co-operative Vehicular Network," *IEEE Internet of Things Journal*, 2021. [IF:10.6, Q1] [Revision]
- J.218. H. Lin, S. Garg, G. Kaddoum and **M. Shamim Hossain**, "Blockchain and Deep Reinforcement Learning Empowered Spatial Crowdsourcing in Software-Defined Internet of Vehicles," *IEEE Transactions on Intelligent Transportation Systems*, vol. 22, no. 6, pp. 3755-3764, June 2021, [IF: 8.5, Q1]
- J.219. Q. Li, S. Garg, J. Nie, Z. Cao and **M. Shamim Hossain**, "A Highly Efficient Vehicle Taillight Detection Approach Based on Deep Learning" *IEEE Transactions on Intelligent Transportation Systems*, DOI: 10.1109/TITS.2020.3027421, 2021 [IF: 8.5, Q1] [Online]
- J.220. L. Luan, W. Xiao, K. Hwang, **M. Shamim Hossain**, G. Muhammad and A. Ghoneim, "MEMO Box: Health Assistant for Depression with Medicine Carrier and Exercise Adjustment Driven by Edge Computing," *IEEE Access*, doi: 10.1109/ACCESS.2020.3031725, 2020. [IF: 3.367, Q2].
- J.221. S. Upreti, S. Dehdashti, P. Tiwari, and **M. Shamim Hossain\***, "TermInformer: Unsupervised Term Mining and Analysis in Biomedical Literature," *Neural Computing and Applications*, DOI: 10.1007/s00521-020-05335-2, 2021. [IF: 5.606, Q1]. [Online]
- J.222. A. K. Jaiswal, P. Tiwari. and **M. Shamim Hossain**, "Predicting users' behavior using mouse movement information: an information foraging theory perspective," *Neural Comput & Applic*, DOI: 10.1007/s00521-020-05306-7, 2021. [IF: 5.606, Q1]
- J.223. M.W., Akhtar, S.A., Hassan, R. Ghaffar, and **M. Shamim Hossain**, "The Shift to 6G Communications: Vision and Requirements," *Hum. Cent. Comput. Inf. Sci.* vol. 10, no. 53 (2020). [IF: 5.9, Q1].
- J.224. M. Masud, **M. Shamim Hossain\***, et al. "Leveraging deep learning techniques for malaria parasite detection using mobile application " *Wireless Communications and Mobile Computing*, vol. 2020, Article ID 8895429, 15 pages, 2020 [IF: 1.520, Q3]
- J.225. G. Muhammad and **M. Shamim Hossain\*** "COVID-19 Screening from Ultrasound Images Using Multi-Layers Fusion of Convolutional Neural Networks," *Information Fusion*, vol. x, no. 2020, pp. x-, 2020 [IF: 18.6]
- J.226. M. Masud, G. Muhammad, **M. Shamim Hossain**, et al. "Light Deep Model for Pulmonary Nodule Detection from CT Scan Images for Mobile Devices," *Wireless Communications and Mobile Computing*, vol. 2020, Article ID 8893494, 8 pages, <https://doi.org/10.1155/2020/8893494>, July 2020. [IF: 1.520, Q3]
- J.227. S. Ullah, M. M. Hassan, **M. Shamim Hossain**, and A.Alelailwi, "Performance Evaluation of RTS/CTS Scheme in Beacon-Enabled IEEE 802.15.6 MAC Protocol for Wireless Body Area Networks," *Sensors*, vol. 20, no. 8 2368 (2020) IF: 3.144, Q2]
- J.228. **M. Shamim Hossain**, and G. Muhammad, "Emotion Recognition Using Secure Edge and Cloud Computing," *Information Sciences*, vol. 504, no. 2019, pp. 589-601, December 2019 [IF: 6.795, Q1]
- J.229. **M. Shamim Hossain\***, et al., "QoS-oriented multimedia transmission using multi path routing," *Future Generation Computer Systems*, vol. 99, no. 2019, pp. 226-234, October 2019 [IF: 7.5, Q1]
- J.230. **M. Shamim Hossain\***, G. Muhammad, and A. Alamri, "Smart healthcare monitoring: a voice pathology detection paradigm for smart cities," *Multimedia Systems*, vol. 25, no. 5, pp. 565-575, October 2019 [IF: 1.935, Q1]
- J.231. **M. Shamim Hossain\***, M. Al-Hammadi and G. Muhammad, "Automatic Fruit Classification Using Deep Learning for Industrial Applications," *IEEE Trans. Industrial Informatics*, vol. 15, no. 2, pp. 1027-1034, Feb. 2019. [IF: 12.3, Q1]
- J.232. Y. Zhang, R. Wan, **M. Shamim Hossain\***, M. Alhamid, M. Guizani, "Heterogeneous Information Network-based Content Caching in the Internet of Vehicles," *IEEE Trans. Vehicular Technology*, vol. 68, no. 10, pp: 10216-10226, Oct. 2019 [IF: 6.239, Q1]
- J.233. M. GH. Al Zamil, S. Samarah, M. Rawashdeh, A. Karime, and **M. Shamim Hossain\***, "Multimedia-oriented action recognition in Smart City-based IoT using multilayer perceptron," *Multimedia Tools and Applications*, Vol. 78, No. 21, vol. 78, no. 21, pp 30315–30329, Nov 2019. [IF: 2.577, Q2]
- J.234. **M. Shamim Hossain\***, and G. Muhammad, "Emotion recognition using deep learning approach from audio–visual emotional big data," *Information Fusion*, vol. 49, no. 2019, pp. 69-78. September 2019. [IF: 18.6, Q1]
- J.235. Y. Miao, G. Wu, C. Liu, **M. Shamim Hossain\***, and G. Muhammad, "Green Cognitive Body Sensor Network: Architecture, Energy Harvesting, and Smart Clothing-Based Applications," *IEEE Sensors Journal*, vol. 19, no. 19, pp. 8371-8378, Oct., 2019. [IF: 3.301, Q1]
- J.236. Y. Hao, Y. Jiang, **M. Shamim Hossain**, A. Ghoneim, J. Yang and I. Humar, "Data-Driven Resource Management in a 5G Wearable Network Using Network Slicing Technology," *IEEE Sensors Journal*, vol. 19, no. 19, pp. 8379-8386, Oct., 2019 [IF: 3.301, Q1]

- J.237. A. Yassine, **M. Shamim Hossain\***, M. Alhamid, M. Guizani, "Double Auction Mechanisms for Dynamic Autonomous Electric Vehicles Energy Trading," *IEEE Trans. Vehicular Technology*, vol. 68, no.8, pp: 7466 - 7476, August 2019. [IF: 6.239, Q1]
- J.238. M. GH. Al Zamil, S. Samarah, M. Rawashdeh, and **M. Shamim Hossain\***, M. Alhamid, M. Guizani, "False Alarm Detection in Fog-Based Internet of Connected Vehicles," *IEEE Trans. Vehicular Technology*, vol. 68, no.7, pp, pp: 7035-7044, July 2019. [IF: 6.239, Q1]
- J.239. S.U. Amin, \_\_\_\_, **M. Shamim Hossain**, "Deep Learning for EEG motor imagery classification based on multi-layer CNNs feature fusion," *Future Generation Computer Systems*, vol. 101, no. 2019, pp. 542-554, Dec 2019 [IF: 7.5, Q1]
- J.240. Y. Zhang, Y. Qian, D. Wu, M. Chen **M. Shamim Hossain**, and A. Ghoneim, "Emotion-aware Multimedia System Security," *IEEE Trans. Multimedia*, vol. 21, no. 3, pp. 617-624, March 2019. [IF: 8.182, Q1]
- J.241. A. Yassine, S. Singh, **M. Shamim Hossain\***, Mohammed F. Alhamid, and M. Guizani, "Autonomous monitoring in healthcare environment: Reward-based energy charging mechanism for IoMT wireless sensing," *Future Generation Computer Systems*, vol. 98, September 2019, Pages 565-576. [IF: 7.5, Q1]
- J.242. G. Wu, P. Zhou, X. Zong, **M. Shamim Hossain\***, G. Muhammad, and S. Y. Amin "Multi-task emotion communication system and dynamic resource allocation," *Information Fusion*, vol. 52, No. December 2019, pp. 167-174, 2019. [IF: 18.6, Q1]
- J.243. M. Shorfuzzaman, **M. Shamim Hossain\***, A Nazir, G. Muhammad, A Alamri, "Harnessing the power of big data analytics in the cloud to support learning analytics in mobile learning environment," *Computers in Human Behavior*, Vol. 92, No. 2019, pp. 578-588, March 2019. [IF: 6.829, Q1]
- J.244. M. Chen, J. Yang, Y. Hao, **M. Shamim Hossain**, and M.F. Alhamid "Emotion-aware Video QoE Assessment via Transfer Learning," *IEEE Multimedia*, vol. 26, no. 1, pp. 31-40, Jan-March 2019, [IF: 5.633, Q1]
- J.245. **M. Shamim Hossain\***, G. Muhammad, "An Audio-Visual Emotion Recognition System Using Deep Learning Fusion for Cognitive Wireless Framework, *IEEE Wireless Communications*, vol. 26, no.3, pp. 1-8, June 2019. [IF: 12.9, Q1]
- J.246. Y. Zhang, **M. Shamim Hossain\***, A. Ghoneim, and M. Guizani, "COCME: Content-Oriented Caching on the Mobile Edge for Wireless Communications," *IEEE Wireless Communications*, vol. 26, no. 3, pp 1-8, June 2019. [IF: 12.9, Q1]
- J.247. K. Lin, C. Li, D. Tian, **M. Shamim Hossain** and A. Ghoneim, "Artificial-Intelligence-Based Data Analytics for Cognitive Communication in Heterogeneous Wireless Networks," *IEEE Wireless Communications*, vol. 26, no. 3, pp. 1-9, June 2019, DOI: 10.1109/MWC.2019.1800351 [IF: 12.9, Q1]
- J.248. A. Yassine, S. Singh, **M. Shamim Hossain\***, and G. Muhammad, "IoT Big Data Analytics for Smart Homes with Fog and Cloud Computing," *Future Generation Computer Systems*, vol. 91, no. 2019, pp. 563-573, Feb 2019. [IF: 7.5, Q1]
- J.249. **M. Shamim Hossain\***, S. U. Amin, G. Muhammad and M. Al Sulaiman, "Applying Deep Learning for Epilepsy Seizure Detection and Brain Mapping Visualization," *ACM Trans. Multimedia Comput. Commun. Appl. (ACM TOMM)*, vol. 15, No. 1s, Article 10 (February 2019), 17 pages IF: 5.1, Q1]
- J.250.K. Lin, Di Wang, Long Hu, **M. Shamim Hossain\***, G. Muhammad, "Virtualized QoS-Driven Spectrum Allocation in Space-Terrestrial Integrated Networks Data" *IEEE Network*, vol. 33, no. 1, pp. 58-63, Jan/Feb 2019. [IF: 9.3, Q1]
- J.251. W-C. Chien, C-F. Lai, **M. Shamim Hossain\***, G. Muhammad, "Heterogeneous Space and Terrestrial Integrated Networks for IoT: Architecture and Challenges," *IEEE Network*, vol. 33, no. 1, pp. 15-21, Jan/Feb 2019. [IF: 9.3, Q1]
- J.252. Y. Hao, Y. Miao, L. Hu, **M. Shamim Hossain\***, G. Muhammad, "Smart-Edge-CoCaCo: AI-Enabled Smart Edge with Joint Computation, Caching, and Communication in Heterogeneous IoT," *IEEE Network*, vol. 33, no. 2, pp. 12-18, March/April 2019. [IF: 9.3, Q1]
- J.253. Y. Zhang, X. Ma, J. Zhang, **M. Shamim Hossain**, Ghulam Muhammad, Syed Umar Amin, "Edge Intelligence in the Cognitive Internet of Things: Improving Sensitivity and Interactivity", *IEEE Network*, vol. 33, no. 3, pp. 58 - 64, May-June 2019. [IF: 9.3, Q1]
- J.254. M. Alhussein, Ghulam Muhammad, and **M. Shamim Hossain\***, "EEG Pathology Detection based on Deep Learning," *IEEE Access*, vol. 7, pp. 27781-27788, 2019. [IF: 3.367, Q2].
- J.255. M. A. Rahman, **M. Shamim Hossain**, M. A. Rahman, M. M. Rashid, J. Staurt, M. F. Alhamid and M. Guizani, M. F. Alhamid and M. Guizani, "Blockchain-based non-invasive Cyber-Physical Occupational Therapy Framework: BCI Perspective," *IEEE Access*, vol. 7, pp 34874-34884, 2019. [IF: 3.367, Q2].
- J.256. S.U. Amin, M. Al Sulaiman, G. Muhammad **M. Shamim Hossain\***, G. Muhammad, "Multilevel Weighted Feature Fusion Using Convolutional Neural Networks for EEG Motor Imagery Classification," *IEEE Access*, vol. 7, no.1. pp. 18940-18950, Feb. 2019. DOI: 10.1109/ACCESS.2019.2895688 [IF: 3.367, Q2]

- J.257. M. A. Rahman and **M. Shamim Hossain\***, "A Cloud-based Virtual Caregiver for Elderly People in a Cyber Physical IoT Systems," *Cluster Computing*, vol. 22, no. 1, pp. 2317-2330, Jan 2019 [IF: 1.809, Q1]
- J.258. Al-Letif, **M. Shamim Hossain\*** and N. Wang, "Score level multibiometrics fusion approach for healthcare" *Cluster Computing*, vol. 22, no. 1, pp. 2425–2436, Jan 2019. [IF: 1.809, Q1]
- J.259. L. Li, **M. Shamim Hossain\*** et al. "Distortion less secret image sharing scheme for Internet of Things system" *Cluster Computing*, vol. 22, Supplement 1, pp. 2293-2307, 2019 [IF: 1.809, Q1]
- J.260. S. Elmougy, and **M. Shamim Hossain\*** et al., "A parameter-based growing ensemble of self-organizing maps for outlier detection in healthcare," *Cluster Computing*, vol. 22, no. 1, pp. 2437-2460, Jan 2019 [IF: 1.809, Q1]
- J.261. **M. Shamim Hossain\***, G. Muhammad, and S. U. Amin, "Improving Consumer Satisfaction in Smart Cities Using Edge Computing and Caching: A Case Study of Date Fruits Classification," *Future Generation Computer Systems*, vol. 88, no. (2018), pp. 333-341, Nov. 2018 [IF: 7.5, Q1]
- J.262. **M. Shamim Hossain\***, G. Muhammad, "Environment Classification for Urban Big Data Using Deep Learning," *IEEE Communications Magazine*, vol. 56, no.11, pp. 44 – 50, Nov 2018. [IF: 9.030, Q1]
- J.263. M. Chen, J. Yang, L. Hu, **M. Shamim Hossain**, G. Muhammad, "Urban Healthcare Big Data System Based on Crowdsourced and Cloud-Based Air Quality Indicators," *IEEE Communications Magazine*, vol. 56, no. 11, pp. 14-20, November 2018. [IF: 9.030, Q1]
- J.264. **M. Shamim Hossain\***, and G. Muhammad, "Emotion-Aware Connected Healthcare Big Data Towards 5G," *IEEE Internet of Things Journal*, vol. 5, no. 4, pp. 2399-2406, Aug. 2018. [IF: 9.936, Q1]
- J.265. M. A. Rahman and **M. Shamim Hossain\***, "M-Therapy: A Context-Aware Big Data Multimedia Framework for in-Home Mobile Therapy Management: A Social Internet of Things Perspective," *IEEE Internet of Things Journal*, vol. 5, no. 4, pp. 2548-2556, Aug. 2018. [IF:10.6, Q1]
- J.266. Y. Miao, W. Li, D. Tian, **M. Shamim Hossain** and M. F. Alhamid, "Narrow Band Internet of Things: Simulation and Modelling," *IEEE Internet of Things Journal*, vol. 5, no. 4, 2548-2556, Aug. 2018. [IF:10.6, Q1]
- J.267. T. Han, A. K. Sangaiah, **M. Shamim Hossain**, G. Muhammad, "Enforcing Position-Based Confidentiality with Machine Learning Paradigm through Mobile Edge Computing in Real-Time Industrial Informatics," *IEEE Trans. Industrial Informatics*, vol. 15, no. 7, pp. 1-8, 2019. [IF: 12.3, Q1]
- J.268. **M. Shamim Hossain\*** et al., "Advances of Multisensory Services and Technologies for Healthcare in Smart Cities," *IEEE Access*, vol. 6, no.1. 62335-62338, Dec. 2018. DOI: 10.1109/ACCESS.2018.2875302 [IF: 3.367, Q2].
- J.269. S.U. Amin, **M. Shamim Hossain\***, G. Muhammad, M. AlHussein, M. A. Rahman, "Cognitive Smart Healthcare for Pathology Detection and Monitoring," *IEEE Access*, vol. 7, no.1. pp. 10745-10753, Dec. 2019. [IF: 3.367, Q2].
- J.270. M. A. Rahman, M. M. Rashid, **M. Shamim Hossain**, E. Hassanain, M. F. Alhamid and M. Guizani, "Blockchain and IoT-Based Cognitive Edge Framework for Sharing Economy Services in a Smart City," *IEEE Access*, vol. 7, pp. 18611-18621, 2019. [IF: 3.367, Q2].
- J.271. **M. Shamim Hossain\***, M. Hoda, G. Muhammad, A. Almogren, and A. Alamri, "Cloud-supported Serious Games framework for the patients with post stroke disability rehabilitation," *Telematics-and-Informatics*, vol. 35, no. 4, pp. 826-836. [IF: 6.182, Q1]
- J.272. M. A. Rahman and **M. Shamim Hossain\***, E. Hassanain and G. Muhammad, "Semantic Multimedia Fog Computing and IoT Environment: Sustainability Perspective," *IEEE Communications Magazine*, vol. 56, no. 5, pp. 80-87, 2018. [IF: 9.030, Q1]
- J.273. M. Chen, Y. Hao, L. Hu, **M. Shamim Hossain** and A. Ghoneim, "Edge-CoCaCo: Toward Joint Optimization of Computation, Caching, and Communication on Edge Cloud," *IEEE Wireless Communications*, vol. 25, no. 3, pp. 21-27, JUNE 2018. [IF: 12.9, Q1]
- J.274. **M. Shamim Hossain\***, C. Xu, Y. Li, J. Bilbao and A. E. Saddik, "Advances in Next-Generation Networking Technologies for Smart Healthcare," *IEEE Communications Magazine*, vol. 56, no. 4, pp. 14-15, APRIL 2018. [IF: 9.030, Q1]
- J.275. L. Hu, Y. Qian, M. Chen, **M. Shamim Hossain**, G. Muhammad "Proactive Cache-Based Location Privacy Preserving for Vehicle Networks," *IEEE Wireless Communications*, vol. 25, no. 6, pp. 77 – 83, Dec 2018. [IF: 12.9, Q1]
- J.276. **M. Shamim Hossain\***, et al., "Cloud-oriented emotion feedback-based Exergames framework," *Multimedia Tools and Applications*, vol. 77, no. 17, 21861-21877. DOI 10.1007/s11042-017-4621-1 [IF: 2.577, Q2]
- J.277. M. Rawashdeh, M. G. A. Zamil, S. Samarah, **M. Shamim Hossain\***, G. Muhammad, and S. Y. Amin "Reliable Service Delivery in Tele-Health Care Systems," *Journal of Network and Computer Applications*, vol. 115, no. 2018, pp. 86-93, May 2018. [IF: 5.57, Q1]

- J.278. S. Samarah, M. Rawashdeh, M. G. A. Zamil, **M. Shamim Hossain\***, G. Muhammad, and A. Almari, "Transferring Activity Recognition Models in FOG Computing Architecture," *Journal of Parallel and Distributed Computing*, vol. 122, no. Dec. 2018, pp. 122-130. [IF: 3.734, Q1]
- J.279. Y. Miao, Y. Jiang, L. Peng, **M. Shamim Hossain\***, and Ghulam Muhammad, "Telesurgery Robot Based on 5G Tactile Internet" *Mobile Networks and Applications*, vol. 23, no. 6, pp. 1645-1654. December 2018. DOI: 10.1007/s11036-018-1110-3 [IF: 3.426, Q2]
- J.280. M. Alhussein, Ghulam Muhammad, S.U. Amin, and **M. Shamim Hossain\***, "Cognitive IoT-Cloud Integration for Smart Healthcare: Case Study for Epileptic Seizure Detection and Monitoring," *Mobile Networks and Applications*, vol. 23, no. 6, pp 1624–1635, December 2018. [IF: 3.426, Q2]
- J.281. M. Al-Hami, R. Lakaemper, M. Rawasdeh, and **M. Shamim Hossain\***, "Camera Localization for a Human Pose in 3D Space Using a Single 2D Human-Pose Image with Landmarks: A Multimedia Social Network Emerging Demand," *Multimedia Tools and Applications*, vol. 78, no. 3, pp. 3587-3608 2019. [IF: 2.577, Q2]
- J.282. M. A. Rahman, E. Hassanain, M. Rashid, S. Barnes, and **M. Shamim Hossain\***, "Spatial Blockchain-based Secure Mass Screening Framework for Children with Dyslexia," *IEEE Access*, vol. 6, no. 1, pp. 61876-61885, [IF: 3.367, Q2].
- J.283. J. Yang, W. Xiao, C. Jiang, **M. Shamim Hossain\***, G. Muhammad and S. U. Amin, "AI-Powered Green Cloud and Data Center," *IEEE Access*, vol. 7, pp. 4195-4203, 2019. [IF: 3.367, Q2].
- J.284. M. A. Rahman and **M. Shamim Hossain\*** et al. "A Blockchain-based Mobile Edge Computing Framework for Secure Therapy Applications," *IEEE Access*, vol. 6, no. 1, pp. 72469-72478, Dec 2018. [IF: 3.367, Q2].
- J.285. M. Usama, B. Ahmad, J. Wan, **M. Shamim Hossain**, M. A. Hossain, and M. F. Alhamid, "Deep Feature Learning for Disease Risk Assessment based on Convolutional Neural Network with Intra-Layer Recurrent Connection by using Hospital Big Data," *IEEE Access*, vol. 6, no. 1, pp. 67927-67939, 2018. [IF: 3.367, Q2].
- J.286. Y. Hao, M Usama, J. Yang, **M. Shamim Hossain\***, and A. Ghoneim, "Recurrent Convolutional Neural Network based Multimodal Disease Risk Prediction," *Future Generation Computer Systems*, vol. 92, no. 2019, pp. 76-83, March 2019. [IF: 7.5, Q1]
- J.287. A. Somrak, I. Humar, **M. Shamim Hossain\***, M. A. Hossain, M. F. Alhamid, and J. Guna "Estimating VR Sickness and User Experience using different HMD Technologies: An Evaluation Study," *Future Generation Computer Systems*, vol. 94, pp. 302-316, May 2019 [IF: 7.5, Q1]
- J.288. U. K. Dutta, A. Al-Wadud, M. A. Razzaque, M.S. Islam, **M. Shamim Hossain\***, B. B. Gupta, "Self-Adaptive Scheduling of Base Transceiver Stations in Green 5G Networks," *IEEE Access*, vol. 6, no. 2018, pp. 6071-6081. [IF: 3.367, Q2].
- J.289. M. Chen, Y. Qian, J. Chen, **M. Shamim Hossain\*** and A. Alamri, "Secure Enforcement in Cognitive Internet of Vehicles," *IEEE Internet of Things Journal*, vol. 5, no. 2, pp. 1242-1250, April 2018. [IF: 9.936, Q1]
- J.290. **M. Shamim Hossain\***, G. Muhammad, and M. Al-Qurishi, "Verifying the Images Authenticity in Cognitive Internet of Things (CIoT)-Oriented Cyber Physical System," *Mobile Networks and Applications*, vol. 23, no. 2, pp 239-250, April 2018. [IF: 3.426, Q2]
- J.291. P. Zhou, K. Duan, J. Lu, **M. Shamim Hossain**, and Mohammed F. Alhamid "emHealth: Towards Emotion Health through Depression Prediction and Intelligent Health Recommender System," *Mobile Networks and Applications*, vol. 23, no. 2, pp 216–226, April 2018 [IF: 3.426, Q2]
- J.292. **M. Shamim Hossain**, J. Yang, J. Lu, C. Han, and M. F. Alhamid, "MT-AAAU: Design of Monitoring and Tracking for Anti-Abuse of Amateur UAV," *Mobile Networks and Applications*, vol. 23, no.2, pp 328–335, April 2018. [IF: 3.426, Q2]
- J.293. M. Masud, and **M. Shamim Hossain\*** et. al., "Secure Data Exchange Protocol in a Cloud-Based Collaborative Healthcare Environment," *Multimedia Tools and Applications*, vol. 77, no. 9, pp 11121–11135, May, 2018 [IF: 2.577, Q2]
- J.294. M. Al-Qurishi, S. Alhuzami, M. AlRubaian, **M. Shamim Hossain\***, A. Alamri, and M. A. Rahman, "User Profiling for Big Social Media Data using Standing Ovation Model," *Multimedia Tools and Applications*, vol. 77, no. 9, pp. 11179-11201. May, 2018. [IF: 2.577, Q2]
- J.295. Y. Miao, Y. Tian, L. Peng, **M. Shamim Hossain** and G. Muhammad, "Research and Implementation of ECG-Based Biological Recognition Parallelization," *IEEE Access*, vol. 6, pp. 4759-4766, 2018. [IF: 3.367, Q2]
- J.296. **M. Shamim Hossain\***, W. Abdul, G. Muhammad, B. Song, and B. Gupta "Cloud-assisted secure video transmission and sharing framework for smart cities," *Future Generation Computer Systems*, vol. 83, no. 2018, pp. 596-607, June 2018. [IF: 7.5, Q1]
- J.297. A. Al-Latif, B. Abd-El-Atty, **M. Shamim Hossain\***, M. A. Rahman, A. Alamri and B. B. Gupta "Efficient quantum information hiding for remote medical image sharing," *IEEE Access*, vol. 6, no. 2018, pp. 21075-21083, 2018. [IF: 3.367, Q2]

- J.298. M. Al-Qurishi, SMM. Rahman, and **M. Shamim Hossain\*** et al., "An Efficient Key Agreement Protocol for Sybil-precaution in Online Social Network," *Future Generation Computer Systems*, vol. 84, no (2018), pp. 139-148. July 2018, [IF: 7.5, Q1]
- J.299. Z. Ali, and **M. Shamim Hossain\*** G. Muhammad and M. Aslam, "New Zero-Watermarking Algorithm Using Hurst Exponent for Protection of Privacy in Telemedicine," *IEEE Access*, vol. 6, pp. 7930-7940, 2018. [IF: 3.367, Q2]
- J.300. Z. Ali, **M. Shamim Hossain\***, G. Muhammad and A. Sangaiah, "An Intelligent Healthcare System for Detection and Classification to Discriminate Vocal Fold Disorders," *Future Generation Computer Systems*. Vol. 85, no. 2018, pp. 19-28, August 2018 [IF: 7.5, Q1]
- J.301. **M. Shamim Hossain\***, M.F.Alhamid, and G. Muhammad, "Collaborative Analysis Model for Trending Images on Social Networks," *Future Generation Computer Systems*, vol. 86, no. 2018, pp. 855-862, 2018 [IF: 7.5, Q1]
- J.302. Z. Ali, **M. Shamim Hossain\***, et al., "Edge-centric multimodal authentication system using encrypted biometric templates," *Future Generation Computer Systems*, vol. 85, no. 2018, pp. 76-87, August 2018. [IF: 7.5, Q1]
- J.303. A. Al-Letif, Abd-El-Atty, **M. Shamim Hossain\***, S. Elmougy and A. Ghoneim, "Secure Quantum Steganography Protocol for Fog Cloud Internet of Things," *IEEE Access*, vol. 6, pp. 10332-10340, 2018. [IF: 3.367, Q2]
- J.304. Y. Hao, M. Chen, L. Hu, **M. Shamim Hossain\*** and A. Ghoneim, "Energy Efficient Task Caching and Offloading for Mobile Edge Computing," *IEEE Access*, vol. 6, pp. 11365-11373, 2018 [IF: 3.367, Q2]
- J.305. Y. Miao, Y. Tian, J. Cheng, **M. Shamim Hossain\***, and A. Ghoneim, "RADB: Random Access with Differentiated Barring for Latency-Constrained Applications in NB-IoT Network," *Wireless Communications and Mobile Computing*, vol. 2018, Article ID 6210408, 9 pages, 2018 [IF: 2.2969]
- J.306. J. Song, Y. Miao, E. Song, **M. Shamim Hossain\***, and Mohammed F. Alhamid, "Reliability-Aware Cooperative Node Sleeping and Clustering in Duty-Cycled Sensors Networks," *Sensors* 2018, 18(1), 127. IF: 3.144, Q2]
- J.307. **M. Shamim Hossain\***, and G. Muhammad, "An Emotion Recognition System for Mobile Applications," *IEEE Access*, vol. 5, No. 2017, pp: 2281-2287, 2017. [IF: 3.367, Q2]
- J.308. **M. Shamim Hossain\***, C. Xu, A.M. Artoli, M. Murshed, S. Goebel, "Cloud-Based Multimedia Services for healthcare and other related applications," *Future Generation Computer Systems*, vol. 66, no. 2016, pp. 27-29, Jan 2017 [IF: 7.5, Q1]
- J.309. **M. Shamim Hossain\***, M. A. Rahman, and G. Muhammad, "Cyber-physical cloud-oriented multi-sensory smart home framework for elderly people: An energy efficiency perspective," *Journal of Parallel and Distributed Computing*, vol. 103, no. 2017, pp. 11-21, May 2017. [IF: 3.734, Q1]
- J.310. **M. Shamim Hossain\***, "Cloud-Supported Cyber-Physical Localization Framework for Patients Monitoring," *IEEE Systems Journal*, vol. 11, no. 1, pp. 118-127, 2017 [IF: 3.931, Q1]
- J.311. W. Abdul, Z. Ali, G. Muhammad, B. ALfawaz, and **M. Shamim Hossain\***, "Biometric Security through Visual Encryption for Fog Edge Computing," *IEEE Access*, vol. 5, pp. 5531-5538, 2017. [IF: 3.367, Q2]
- J.312. **M. Shamim Hossain\***, et al., "Impact of Next-Generation Mobile Technologies on IoT-Cloud Convergence," *IEEE Communications Magazine*, vol. 55, no. 1, pp. 18-19, January 2017. [IF: 9.030, Q1]
- J.313. M. Al-Qurishi, M. Al-Rakhami, A. Alamri, M. A. AlRubaian, S. M. M. Rahman, **M. Shamim Hossain\*** "Sybil Defense Techniques in Online Social Networks: A Survey," *IEEE Access*, vol. 5, No. 2017, pp: 1200-1219, 2017 [IF: 3.367, Q2]
- J.314. M. A. Rahman, and **M. Shamim Hossain\***, "A Location-Based Mobile Crowdsensing Framework Supporting a Massive Ad Hoc Social Network Environment," *IEEE Communications Magazine*, vol. 55, no.3, pp.76-85, 2017. [IF: 9.030, Q1]
- J.315. M. A. Rahman, E. Hassanain, and **M. Shamim Hossain\***, "Towards a Secure Mobile Edge Computing Framework for Hajj," *IEEE Access*, vol. 5, No. 2017, pp. 5: 11768-11781. [IF: 3.367, Q2]
- J.316. H. A. A. Hamid, S. M. M. Rahman, and **M. Shamim Hossain\***, A. Almogren and A. Alamri, "A Security Model for Preserving the Privacy of Medical Big Data in a Healthcare Cloud Using a Fog Computing Facility with Pairing-Based Cryptography," *IEEE Access*, vol. 5, no. 2017, pp. 1-1. [IF: 3.367, Q2]
- J.317. H. M. Raafat, **M. Shamim Hossain\*** et al., "Fog Intelligence for Real-time IoT Sensor Data Analytics," *IEEE Access*, vol. 5, no. 2017. [IF: 3.367, Q2]
- J.318. C. F. Lai, Y. C. Chang, H. C. Chao, **M. Shamim Hossain\***, and A. Ghoneim, "A Buffer-Aware QoS Streaming Approach for SDN-Enabled 5G Vehicular Networks," *IEEE Communications Magazine*, vol. 55, no. 8, pp. 68-73, 2017 [IF: 9.030, Q1]

- J.319. M. Rawashdeh, M. Shorfuzzaman, A.M. Artoli, A. Ghoneim, and **M. Shamim Hossain**, "Mining tag-clouds to improve social media recommendation," *Multimedia Tools and Applications*, vol. 76, no. 20, pp 21157-21170, October 2017 [IF: 2.577, Q2]
- J.320. Y. Zhang, Y. Zhang, K. Duan, **M. Shamim Hossain**, S.M.M. Rahman, "TOLA: Topic-Oriented Learning Assistant Based on Cyber-Physical System and Big Data," *Future Generation Computer Systems*, vol. 75, no. 2017, pp. 200-205, 2017. [IF: 7.5, Q1]
- J.321. J.Wang, Y. Miao, P. Zhou, **M. Shamim Hossain**, and SMM Rahman, "A Software Defined Network Routing in Wireless Multihop Network," *Journal of Network and Computer Applications*, vol. 85, no. 2017, pp. 76-83, May 2017. [IF: 5.57, Q1] T
- J.322. A. Alnusair, M. Rawasdeh, **M. Shamim Hossain\***, and A. Alamri "Context-Aware Multimodal Recommendations of Multimedia Data in Cyber Situational Awareness," *Multimedia Tools and Applications*, vol. 76, No. 21, pp 22823-22843, November 2017 [IF: 2.577, Q2]
- J.323. G. Muhammad, M. Alhamid, **M. Shamim Hossain**, A. Al-Mogren, A. Vasilakos, "Enhanced Living by Assessing Voice Pathology Using a Co-Occurrence Matrix.," *Sensors*, 2017, 17, 267 IF: 3.144, Q2]
- J.324. K. Lin, J. Song, J. Luo, W. Ji, **M. Shamim Hossain**, and A. Ghoneim, "Green Video Transmission in the Mobile Cloud Networks," *IEEE Trans. Circuits Syst. Video Technol.*, vol. 27, no. 1, pp. 159-169, January 2017. [IF: 5.859, Q1]
- J.325. K. Lin, J. Luo, L. Hou, **M. Shamim Hossain**, and A Ghoneim "Localization based on Social Big Data Analysis in the Vehicular Networks," *IEEE Trans. Industrial Informatics*, vol. 13, no. 4, pp. 1932-1940, 2017. [IF: 12.3, Q1]
- J.326. G. Li, D. Wu, J. Hu, Y. Li, **M. Shamim Hossain**, and A. Ghoneim, "HELOS: Heterogeneous Load Scheduling for Electric Vehicle-Integrated Microgrids," *IEEE Trans. Vehicular Technology*, vol. 66, no. 7, pp: 5785-5796, 2017 [IF: 6.239, Q1]
- J.327. R. Tso, A. Alelaiwi, SMM Rahman, M-E. Wu, and **M. Shamim Hossain\***, "Privacy-Preserving Data Communication Through Secure Multi-Party Computation in Healthcare Sensor Cloud," *Journal of Signal Processing Systems*, vol.89, no. 1, pp. 51-59, 2017 [IF: 1.013, Q3]
- J.328. M. Al-Qurishi, **M. Shamim Hossain\***, M. Alrubaian, S. M. M. Rahman and A. Alamri, "Leveraging Analysis of User Behavior to Identify Malicious Activities in Large-Scale Social Networks," *IEEE Transactions on Industrial Informatics*, vol. 14, no. 2, pp. 799-813, Feb. 2018. [IF: 12.3, Q1]
- J.329. M. G. A. Zamil, M. Rawashdeh, S. Samarah, **M. Shamim Hossain\***, A. Alnusair and S. M. M. Rahman, "An Annotation Technique for In-Home Smart Monitoring Environments," *IEEE Access*, vol. PP, no. 99, pp. 1-1. doi: 10.1109/ACCESS.2017.2779158 [IF: 3.367, Q2]
- J.330. M Al-Qurishi, SMM Rahman, A Alamri, MA Mostafa, M Al-Rubaian, M Shamim Hossain, BB Gupta," SybilTrap: A graph-based semi-supervised Sybil defense scheme for online social networks," *Concurrency and Computation: Practice and Experience*, vol. 30, no. 5, pp. e426-e436.DOI: 10.1002/cpe.4276, 2017. [IF: 1.536, Q3]
- J.331. **M. Shamim Hossain\***, "Patient state recognition system for healthcare using speech and facial expressions" *Journal of Medical Systems*, vol. 40, no. 12, pp. 272:1-272:8, December 2016. [IF: 4.46, Q2]
- J.332. **M. Shamim Hossain\***, and G. Muhammad, "Audio-Visual Emotion Recognition using Multi-Directional Regression and Ridgelet Transform," *J. Multimodal User Interfaces*, vol. 10, no. 4, pp. 325-333, December 2016 [IF:1.511, Q2]
- J.333. **M. Shamim Hossain\***, and G. Muhammad, "Healthcare Big Data Voice Pathology Assessment Framework," *IEEE Access*, vol. 4, no. 1, pp. 7806-7815, December 2016 [IF: 3.367, Q2]
- J.334. X. Shi, Y. Hu, Y. Zhang, W. Li, Y. Hao, A. Alelaiwi, S. M. M. Rahman, and **M. Shamim Hossain** "Multiple Disease Risk Assessment with Uniform Model based on Medical Clinical Notes," *IEEE Access*, vol. 4, no. 1, pp. 7074-7083, December 2016. [IF: 3.367, Q2]
- J.335. **M. Shamim Hossain\***, and G. Muhammad, "Authenticated intelligent media uploading framework for Mobile cloud computing," *Memetic Computing*, vol. 8, no. 4, pp. 325-332, December 2016. [IF: 5.9, Q1]
- J.336. **M. Shamim Hossain\***, S. Hardy, A. Alamri, A. Alelawi, V. Hardy, and C. Wilhelm, "AR-based Serious Games Framework for Post-Stroke Rehabilitation," *Multimedia Systems*, vol. 22, no. 6, pp. 659-674, November 2016. [IF: 1.935, Q1]
- J.337. L. Hou, S. Zhao, X. Xiong, K. Zheng, P. Chatzimisios, **M. Shamim Hossain**, and A. Ghoneim., "Internet of Things Cloud: Architecture and Implementation," *IEEE Communications Magazine*, vol. 54, no. 12, pp. 32-39, December 2016. [IF: 9.030, Q1]
- J.338. B. Song, M.M. Hassan, Y. Tian, **M. Shamim Hossain**, and A. Alamri, "Remote Display Solution for Video Surveillance in Multimedia Cloud," *Multimedia Tools and Applications*, vol. 75, no. 21, pp. 13375-13396, November 2016 [IF: 2.577, Q2]

- J.339. A. Alamri, **M. Shamim Hossain\***, M. Al Mogren, M. M. Hassan, K. Alnajjan, M. Zakariah, "A QoS-Adaptive Service Configuration Framework for Cloud Assisted Video Surveillance System," *Multimedia Tools and Application*, vol. 75, no. 21, pp. 13333-13348, November 2016. [IF: 2.577, Q2]
- J.340. R. Tso, A. Alelaiwi, SMM Rahman, M-E. Wu, and **M. Shamim Hossain\***, "Privacy-Preserving Data Communication through Secure Multi-Party Computation in Healthcare Sensor Cloud," *Journal of Signal Processing Systems*, vol.89, no. 1, pp. 51-59, 2017. [IF: 0.893, Q3]
- J.341. **M. Shamim Hossain\***, M. Zaman, G. Muhammad, A. Ghoneim, and A. Alamri, "Big Data-Driven Services Composition using Parallel Clustered Particle Swarm Optimization in Mobile Environment" *IEEE Trans. Service Computing*, vol. 9, no. 5, pp. 806 – 817, Sep/October 2016 [IF:5.823, Q1]
- J.342. **M. Shamim Hossain\***, G. Muhammad, Sk. M. M. Rahman, W. Abdul, A. Alelaiwi and A. Alamri, "Towards End-to-End Biometrics-Based Security for IoT Infrastructure," *IEEE Wireless Communications*, vol. 23. no. 5, pp. 45-51, October 2016 [IF: 12.9, Q1]
- J.343. **M. Shamim Hossain\***, G. Muhammad, M. F. Al Hamid and B. Song, "Audio-Visual Emotion-aware Big Data Recognition towards 5G," *Mobile Networks and Applications*, vol. 21, no. 5, pp. 753-763, October 2016 [IF: 3.426, Q2]
- J.344. X. Shi, Y. Hao, D. Zeng, L. Wang, **M. Shamim Hossain**, SMM Rahman, A. Alelaiwi, "Cloud-assisted Mood Fatigue Detection System," *Mobile Networks and Applications*, vol. 21, no. 5, pp. 744-752, October 2016. [IF: 3.426, Q2]
- J.345. X. Xiong, L. Hou, K. Zheng, W. Xiang, **M. Shamim Hossain**, S.M.M. Rahman, "SMDP-Based Radio Resource Allocation Scheme in Software-Defined Internet of Things Networks," *IEEE Sensors Journal*, vol. 16, no. 20, pp. 7304 – 7314, October 2016. [IF: 3.301, Q1]
- J.346. X. Yang, T. Zhang, C.Xu, S. Yan, **M. Shamim Hossain**, and A. Ghoneim, "Deep Relative Attributes," *IEEE Trans. Multimedia*, vol. 18, no.: 9, pp. 1832-1842, Sept. 2016. [IF: 8.182, Q1]
- J.347. X. Shi, W. Li, J. Son, **M. Shamim Hossain**, and Sk. Md Mizanur Rahman, "Towards Interactive Medical Content Delivery between Simulated Body Sensor Networks and Practical Data Center," *J. Medical Systems*, vol. 40, no. 10, pp.214:1-214:11, August 2016. [IF: 4.46, Q2]
- J.348. M. Yan, J. Sang, C. Xu, **M. Shamim Hossain**, "A Unified Video Recommendation by Cross-network User Modeling," *ACM Transactions on Multimedia Computing, Communications, and Applications*, vol. 12, no. 4, Article No. 53, (August 2016), 24 pages. IF: 5.1, Q1]
- J.349. **M. Shamim Hossain\***, S. Gobel, and A. El Saddik, "Introduction to the Special Section on Multimedia Services for E-health," *Computers & Electrical Engineering*, vol. 53, pp. 418-420, July 2016. [IF: 2.663, Q2]
- J.350. **M. Shamim Hossain\***, and G. Muhammad "Cloud-assisted Industrial Internet of Things (IIoT) - Enabled framework for health monitoring," *Computer Networks*, Vol. 101, No. (2016), pp.192-202, June 2016. [IF: 5.6, Q1]
- J.351. Y. Hu, K. Duan, Y. Zhang, **M. Shamim Hossain**, SMM Rahman, and A. Alelaiwi, "Simultaneously aided diagnosis model for outpatient departments via healthcare big data analytics," *Multimedia Tools and Applications*, vol. 77, pp. 3729–3743, 2018. [IF: 2.577, Q2]
- J.352. Q. Fang, C.Xu, J. Sang, **M. Shamim Hossain**, and A. Ghoneim, "Folksonomy-based Visual Ontology Construction and Its Applications," *IEEE Trans. Multimedia*, vol. 18, no. 4, pp. 702-713, April 2016. [IF: 8.182, Q1]
- J.353. Q. Fang, C. Xu, **M. Shamim Hossain**, and G. Muhammad, "STCAPLRS: A Spatial-Temporal Context-Aware Personalized Location Recommendation Systems," *ACM Trans. Intell Syst Technol (ACM TIST)*, vol. 7, no. 4, Article 59, (March 2016), 30 pages. [IF: 4.654, Q1]
- J.354. M. Masud, **M. Shamim Hossain\***, A. Almari, A. Almogren, and M. Zakariah, "Synchronizing data through update queries in interoperable e-health and technology enhanced learning data sharing system, *JUCS*, vol 21, no. 11, pp. 1439-1453, 2015 [IF: 0.0.696, Q4]
- J.355. L. Hu, M. Qiu, J. Song, **M. Shamim Hossain**, and A. Ghoneim, "Software Defined Healthcare Networks," *IEEE Wireless Communications*, vol. 22, no. 6, pp.67-75, Dec. 2015 [IF: 12.9, Q1]
- J.356. Q. Fang, C. Xu, J. Sang, and **M. Shamim Hossain** and Ghulam Muhammad, "Word-of-Mouth Understanding: Entity-Centric Multimodal Aspect-Opinion Mining in Social Media," *IEEE Trans. Multimedia*, Vol. 17, No. 12, pp. 2281-2296, December 2015. [IF: 8.182, Q1]
- J.357. **M. Shamim Hossain\***, G. Muhammad, B. Song, M. M. Hassan, A. Alelaiwi and A. Almari, "Audio-Visual Emotion-Aware Cloud Gaming Framework," *IEEE Trans. Circuits Syst. Video Technol.*, Vol. 25, No. 12, pp. 2105-2118, December 2015 [IF: 5.859, Q1]
- J.358. M. F. Alhamid, M. Rawashdeh, H. Al Osman, **M. Shamim Hossain**, and A. El Saddik, "Towards Context-Sensitive Collaborative Media Recommender System," *Multimedia Tools and Applications*, Vol. 74, No. 24, pp. 11399-11428, Dec. 2015. [IF: 2.577, Q2]

- J.359. W. Min, B-K. Bao, C. Xu, and **M. Shamim Hossain**, "Cross-Platform Multi-Modal Topic Modeling for Personalized Inter-Platform Recommendation," *IEEE Trans. Multimedia*, vol. 17, no. 10, pp. 1787-1801, October 2015 [IF: 8.182, Q1]
- J.360. A. Alelaiwi, A. AlGhamdi, M. Shorfuzzaman, M. Rawashed, **M. Shamim Hossain\***, and G. Muhammad, "Enhanced Engineering Education using Smart Class Environment," *Computers in Human Behavior*, Vol. 51, Part. B, pp. 852-856, October 2015. [IF: 6.829, Q1]
- J.361. M. Shorfuzzaman, A. Alelaiwi, M. Masud, M. M Hassan, **M. Shamim Hossain\***, " Usability of a Cloud-based Collaborative Learning Framework to improve Learner's Experience," *Computers in Human Behavior*, Vol. 51, pp. 967-976, October 2015 [IF: 6.829, Q1]
- J.362. M. Yan, J. Sang, C. Xu, and **M. Shamim Hossain**, "YouTube Video Promotion by Cross-network Association," *IEEE Trans. Multimedia*, vol. 17, no. 8, PP. 1248-1261, Aug 2015 [IF: 8.182, Q1]
- J.363. Q. Fang, J. Sang, C. Xu, and **M. Shamim Hossain**, "Relational User Attribute Inference in Social Media," *IEEE Trans. Multimedia*, vol. 17, no. 7, July 2015. [IF: 8.182, Q1]
- J.364. **M. Shamim Hossain\***, S Goebel, and A. El Saddik, "Guest editorial: advances in multimedia for health," *Multimedia Tools and Applications*, Vol. 74, No. 14, pp. 5205-5208, July 2015 [IF:2.577]
- J.365. J. Yuan, C.Xu, J. Sang, S. Yan, and **M. Shamim Hossain**, " Learning Features Hierarchies: A Layer-wise Tag-embedded Approach," *IEEE Trans. Multimedia*, vol. 17, no. 6, June 2015. [IF: 8.182, Q1]
- J.366. B-K. Bao, C. Xu, W. Min, and **M. Shamim Hossain**, "Cross-Platform Emerging Topic Detection and Elaboration from Multimedia Stream," *ACM Transactions on Multimedia Computing, Communications, and Applications*, Vol. 11. No. 4, pp. 54.1-54.21, April 2015 IF: 5.1, Q1] [**Nicolas D. Georganas Best Paper Award**]
- J.367. S. Qian, T. Zhang, C. Xu, and M.S. Hossain "Social event classification via boosted multimodal supervised latent dirichlet allocation," *ACM Trans. Multim. Comput. Commun. Appl.* vol. 11, no. 2, pp.: 27:1-27:22, 2014
- J.368. **M. Shamim Hossain\***, ASK Pathan, S Goebel, SM Rahman, M Murshed, "Editorial: Advances in Multimedia Sensor Networks for Health-Care and Related Applications," *International Journal of Distributed Sensor Networks*, Volume 2015 (May 2015), Article ID 596096, 2 pages.
- J.369. X. Yang, T. Zhang, C. Xu, and **M. Shamim Hossain**, "Automatic Visual Concept Learning for Social Event Understanding," *IEEE Trans. Multimedia*, vol. 17, no. 3, pp. 46-58, March 2015 [IF: 8.182, Q1]
- J.370. **M. Shamim Hossain\***, and Ghulam Muhammad, "Cloud-assisted speech and face recognition framework for health monitoring," *Mobile Networks and Applications*, Vol. 20, No. 3 Feb, 2015, pp. 391-399. [IF: 3.426,
- J.371. A. Alamri, G. Muhammad, A. Alelaiwi, Khalid N. Al-Mutib and **M. Shamim Hossain**, "Media Content Adaptation Framework for Technology Enhanced Mobile e-learning," *J. Universal Computer Science*, vol. 20, no. 15, pp. 2016-2023, Feb. 2015 [IF: 0.696, Q4]
- J.372. G. Muhammad, M. Masud, A. Alelaiwi, M. A. Rahman, A. Karime, A. Alamri and **M. Shamim Hossain**, "Spectro-temporal directional derivative based automatic speech recognition for a serious game scenario," *Multimedia Tools and Applications*, Vol. 74, No. 14, pp. 5313-5327, July 2015. [IF: 2.577, Q2]
- J.373. M. Hassan, B. Song, **M. Shamim Hossain**, A. Alamri, M. Alnuem, M. Monowar, M. Mostafa and M. Anwar Hossain, "Efficient Virtual Machine Resource Management for Media Cloud Computing," *KSII Transactions on Internet and Information Systems*, Vol. 8. no. 5, pp. 1567-1587, 2014 [IF: 0.452, Q4]
- J.374. M. M. Hassan, **M. Shamim Hossain**, J. Sarkar and E-N Huh, "Cooperative game-based distributed resource allocation in horizontal dynamic cloud collaboration platform," *Information System Frontiers*, Vol. 16, No. 4, pp. 523-542, Sep. 2014 [IF: 6.191]
- J.375. **M. Shamim Hossain\***, and G. Muhammad "Cloud-Based Collaborative Media Service Framework for HealthCare.," *International Journal of Distributed Sensor Networks*, Vol. 2014 (2014), Article 858712, 11 pages [IF: 1.151, Q4]
- J.376. **M. Shamim Hossain\***, "QoS-based service composition for distributed video surveillance," *Multimedia Tools and Applications*, vol. 73, no. 1, 169–188, 2014 [IF: 2.577, Q2]
- J.377. **M. Shamim Hossain\***, A. Alghamdi, and A. Alelaiwi, "Web Service-based Collaborative Engineering Education Environment," *Intl. J. Engineering Education*, vol. 30, no. 3, pp. 618-624, 2014 [IF:0.609, Q4]
- J.378. A. Alelaiwi and **M. Shamim Hossain\***, "Evaluating and Testing User Interfaces for Engineering Education Tools: Usability Testing," *Intl. J. Engineering Education*, vol. 30, no. 3, pp. 603-609, 2014 [IF:0.609, Q4]
- J.379. **M. Shamim Hossain\***, M. Masud, G. Muhammad, M. Rawashdeh, M. M. Hassan, "Automated and user-involved data synchronization in collaborative e-health environments," *Computers in Human Behavior*, vol. 30, pp. 485-490, Jan 2014 [IF: 6.829, Q1]
- J.380. A Alamri, MM Hassan, MA Hossain, M Al-Qurishi, Y Aldukhayyil, **M. Shamim Hossain\***, "Evaluating the impact of a cloud-based serious game on obese people," *Computers in Human Behavior*, vol. 30, pp. 468-475, Jan. 2014 [IF: 6.829, Q1]

- J.381. M. A. Rahman, **M. Shamim Hossain**, and A. El Saddik, "Context-aware multimedia services modeling: an e-Health perspective," *Multimedia Tools and Applications*, Vol. 73, No. 3, pp. 1147-1176, Dec. 2014 [IF: 2.577, Q2]
- J.382. **M. Shamim Hossain\***, SK A. Hossain, A. Alamri, and M. Anwar Hossain, "Ant-based service selection framework for a smart home monitoring environment," *Multimedia Tools and Applications*, Vol. 67, No. 2, PP. 433-453, Nov 2013 [IF: 2.577, Q2]
- J.383. A. Alamri, W.S.Ansari, M. M. Hassan, **M. Shamim Hossain\***, A. Alelaiwi, and M.A. Hossain, "A Survey on Sensor-Cloud: Architecture, Applications and Approaches," *International Journal of Distributed Sensor Networks*, Vol. 2013, Article 917923, 18 pages, 2013 [IF: 1.151, Q4]
- J.384. A. Alamri, M. A. Hossain, M. M. Hassan, **M. Shamim Hossain**, M. Alnuem, D. T. Ahmed, and A. El Saddik, "A Cloud-Based Pervasive Serious Game Framework to Support Obesity Treatment," *Computer Science and Information Systems (ComSIS)*, Vol. 10, No. 3, 1229-1246. 2013 [IF: 0.696, Q4]
- J.385. K. Al Nafjan, Al Ghamdhi, **M. Shamim Hossain** and M. Al Qurishi, "Selecting the best-CASE tools for DoDAF-based C4I applications," *J. Information*, Vol. 16, No. 5, pp. 3107-3118, May 2013. [Scopus]
- J.386. M. Masud, **M. Shamim Hossain**, and Atif Alamri, "Data Interoperability and Multimedia Content Management in e-health Systems," *IEEE Trans. Inf. Technol. Biomed.* Vol. 16, No. 6, pp. 1015-1023, Nov. 2012 [IF: 2.493, Q1].
- J.387. **M. Shamim Hossain**, S Goebel, and A. El Saddik, "Multimedia Services and Technologies for E-Health (MUST-EH)," *IEEE Trans. Inf. Technol. Biomed.* Vol. 16, No. 6, pp. 1005-1006, Nov. 2012. [IF:2.493, Q1]
- J.388. **M. Shamim Hossain**, A. Al Ghamdhi, D. Elghobary and A. El Saddik, "Ant Based Energy-Efficient Routing Algorithms for Resource Constrained Networks," *ACTA Press Control and Intelligent Systems J.*, Vol. 39, No. 4, pp. 204-211, 2011 [Scopus]
- J.389. **M. Shamim Hossain\***, and A. El Saddik, "QoS requirement in the Multimedia Transcoding Service Selection Process," *IEEE Trans. Instrum. Meas.*, Vol. 59, No. 6, pp. 1498-1506, June 2010. [IF 2.456, Q1]
- J.390. **M. Shamim Hossain\***, A. Alamri and A. El Saddik, "A Biologically-Inspired framework for Multimedia Service Management in Ubiquitous Environment," *Wiley Concurrency and Computation: Practice and Experience*, Vol. 21, No. 11, August 2009, pp. 1450-1466. [IF: 1.536, Q3]
- J.391. **M. Shamim Hossain\***, and A. El Saddik, "A Biologically-Inspired Multimedia Content Repurposing System in Heterogeneous Network Environments," *Multimedia Systems J.*, Vol. 14, No. 3, 2008, pp. 135-143. [IF: 1.935, Q1]
- J.392. **M. Shamim Hossain** and A. El Saddik, "Scalability Measurement for Multimedia Repurposing System," *Inderscience Int. J. Advanced Media and Commun.*, Vol. 2, No. 3, 2008, pp. 265-285 [Scopus]

### **Papers in Refereed Conference Proceedings**

- C.1 S. Prajapat, P. Kumar and **M. Shamim Hossain**, "A Lightweight Quantum-Based Data Encryption Scheme for Strong and Sustainable Consumer Security," 2026 IEEE International Conference on Consumer Electronics (ICCE), Dubai, United Arab Emirates, 2026, pp. 1-6, doi: 10.1109/ICCE67443.2026.11449660.
- C.2.M. A. Rahman, M. Minhaz Rahman, S. U. Jamil, **M. Shamim Hossain** and S. Al-Hazzaa, "A Multi-Modal Agentic Framework for Dyslexia Screening by Real-Time Gaze Pattern Recognition," 2026 IEEE International Conference on Consumer Electronics (ICCE), Dubai, United Arab Emirates, 2026.
- C.3. R. Sun et al., "Erasure Code-Enabled Off-Chain Distributed Storage for Blockchain," ICC 2025 - IEEE International Conference on Communications, Montreal, QC, Canada, 2025, pp. 4306-4312, doi: 10.1109/ICC52391.2025.11161609
- C.4.A. Amin, K. Hasan, S. Ullah and **M. Shamim Hossain**, "ViT Enhanced Privacy-Preserving Secure Medical Data Sharing and Classification," 2025 IEEE 22nd Consumer Communications & Networking Conference (CCNC), Las Vegas, NV, USA, 2025, pp. 1-2, doi: 10.1109/CCNC54725.2025.10976131
- C.5.M. A. Rahman, M. Minhaz Rahman, **M. Shamim Hossain** and S. Al-Hazzaa, "ONCO-LLM: A Novel Framework for Bridging the Cancer Patients' QoL Data Management Gap Using Agentic Large Language Models and RAG-Enhanced Continuous Monitoring," GLOBECOM 2025 - 2025 IEEE Global Communications Conference, Taipei, Taiwan, 2025, pp. 344-349, doi: 10.1109/GLOBECOM59602.2025.11431669
- C.6.M. A. Rahman, M.S. Islam, M. R. Islam, **M. Shamim Hossain**, and Selwa A. F. Al-Hazzaa, "A Controllable and Efficient Sharing Scheme for Medical IoT Data Based on Consortium Blockchain," 2024 IEEE Global Communications Conference: Selected Areas in Communications: Big Data (Globecom2024 SAC BD), Cape Town, South Africa, Dec 8-12, 2024.
- C.7.Y. Qiao, Y. Xue, Y. Zhai, D. Zhang, AV Vasilakos, **M. Shamim Hossain** and S. Mumtaj, "Controllable and Efficient Sharing Scheme for Medical IoT Data Based on Consortium Blockchain," In Proc. IEEE International Conference on E-health Networking, Application & Services (HealthCom), 18–20 November 2024m Nara, Japan
- C.8.B. Cao, Z. Zhu, X. Liu, **M. Shamim Hossain**, Z. Lv, "Adaptive Multiobjective Evolutionary Neural Architecture Search for GANs based on Two-Factor Cooperative Mutation Mechanism," in Proc. AMC-SME '23, October 29, 2023, Ottawa, ON, Canada. 2023 October 29, 2023 – November 3, 2023, Ottawa, Canada
- C.9.G. A. Rakib, ----- **M. Shamim Hossain** et al., "DeepHealth: A Secure Framework to Manage Health Certificates

- Through Medical IoT, Blockchain and Deep Learning," in Proc. IEEE MeMeA, 2021, pp. 1-6, doi: 10.1109/MeMeA52024.2021.9478691.
- C.10 **M. Shamim Hossain** "Improved Recurrent Neural Networks (RNN) based Intelligent Fund Transaction Model", in Proc. IEEE GLOBECOM 2019, Waikoloa, HI, USA, Dec 9-13, 2019
- C.11 **M. Shamim Hossain**, "CIFT: Connected Intelligent Fund Transaction System Based on Deep Learning," in Proc. IEEE GLOBECOM 2019, Waikoloa, HI, USA, Dec 9-13, 2019
- C.12 **M. Shamim Hossain** "Power Transferring and Analogue Communication Approach for Implantable Devices," IEEE INFOCOM WKSHPs, Paris, France, April 29- May 2, 2019.
- C.13 **M. Shamim Hossain** "An IoT and Blockchain-Based Multi-Sensory In-Home Quality of Life Framework for Cancer Patients," In Proc. IEEE IWCMC 2019, Tangier, Morocco; June 24 - 28, 2019.
- C.14 **M. Shamim Hossain**, "Patient Status Monitoring for Smart Home Healthcare," IEEE ICME 2016, Seattle, USA, July 11 - July 15, 2016.
- C.15 **M. Shamim Hossain et al.**, "Connectivity-Aware Virtual Machine Placement in 60GHz Wireless Cloud Centers, CloudComp 2016, NOVEMBER 25–26, 2016, GUANGZHOU, CHINA [This paper received Best Paper Award ].
- C.16 M.A Rahman, and **M. Shamim Hossain**, "A Gesture-based Smart Home-oriented Health Monitoring Service for People with Physical Impairments," IEEE ICOST 2016, Wuhan, China, 25-27 May, 2016.
- C.17 **M. Shamim Hossain**, and G. Muhammad, "Cloud-based Health Monitoring Framework," In Proc. IEEE CCECE'2015, Halifax, Canada, May 3-5, 2015.
- C.18 B. Song, Y. Tian, M. M. Hassan, A. Alamri, **M. Shamim Hossain**, A. Alelaiwi and B. Zhou "Novel Remote Display Method for Video Surveillance Cloud," in Proc. IEEE ICME AMUSE'2014, Chengdu, China, July 14-18, 2014.
- C.19 **M. Shamim Hossain**, Mehedi Masud, A. Alelaiwi and Abdullah Alghamdi, "ACO-based Media Content Adaptation for E-learning Environment," in Proc. IEEE CIVEMSA'14, Ottawa, ON, Canada, May 5-7, 2014.
- C.20 M. M. Hassan, **M. Shamim Hossain**, B. Song, A. Alamri, "QoS-aware resource allocation for big data in cloud environment," in Proc. IEEE CSCI'14, Las Vegas, USA, 10-12 March, 2014
- C.21 **M. Shamim Hossain**, "QoS in Web Service-based Collaborative Multimedia Environment," in Proc. IEEE ICACT '2014, Phoenix Park, South Korea, Feb 16-19, 2014 [This paper received Outstanding Paper Award ].
- C.22 **M. Shamim Hossain**, and A. El Saddik, "An overview of Cloud based Multimedia Services and Applications for E-Health," in Proc. ACM Multimedia CBMAS-EH '12, Nara, Japan, Oct 29-Nov. 2, 2012
- C.23 **M. Shamim Hossain**, M. M. Hassan and A. Alamri, "Haptic-based Exergame Framework for Obesity Monitoring and Management," in Proc. IEEE HAVE'2013, Istanbul, Turkey, 26-27 October 2013
- C.24 M. M. Hassan, M.A. Hossain, A. Alamri, **M. Shamim Hossain**, Y. Yaldukhayyil, and M. Al-Qurishi," Health Monitoring of Obese People Through a Cloud-based Serious Game Framework," in Proc. IEEE ICME '2013, San Jose, USA, July 15-19.
- C.25 **M. Shamim Hossain** and M. M. Hassan, "An Hybrid ACO-based Approach for Media Service Composition in Video Surveillance Platform," in Proc. IEEE ICME AAMS-PS'13, San Jose, USA, July 15-19.
- C.26 **M. Shamim Hossain**, and A. El Saddik, "An overview of Cloud based Multimedia Services and Applications for E-Health," in Proc. ACM Multimedia CBMAS-EH '12, Nara, Japan, Oct 29-Nov. 2, 2012.
- C.27 M. M. Hassan, **M. Shamim Hossain**, A. Alamri, M. A. Hossain, M. Al-Qurishi, Y. Aldukhayyil, and D. T. Ahmed "A Cloud-Based Serious Games Framework for Obesity", in Proc. ACM Multimedia CBMAS-EH '12, Nara, Japan, Nov. 2, 2012.
- C.28 **M. Shamim Hossain**, M. M. Hassan, M. Al Qurishi, A. Al Gahmdi "Resource Allocation for Service Composition in Cloud-based Video Surveillance Platform", in Proc. IEEE ICME AAMS-PS'12, Melbourne, Australia, July 9-13, 2012.
- C.29 **M. Shamim Hossain**, "Adaptive media service framework for health monitoring", in Proc. ACM ICIMCS'11, Chengdu, China, August 5-7, 2011.
- C.30 M. Ghulam, and **M. Shamim Hossain**, "Robust copy-move image forgery detection using Undecimated wavelets and Zernike moments," in Proc. ACM ICIMCS'11, Chengdu, China, August 5-7, 2011.
- C.31 **M. Shamim Hossain**, "QoS-aware Service Composition for Video Surveillance", in Proc. IEEE ICME AAMS-PS'11, Barcelona, Spain, July 11-15, 2011.
- C.32 **M. Shamim Hossain**, M. Anwar Hossain and A. El Saddik, "Scalable Service Configuration for Ubiquitous Health" in Proc. IEEE-I2MTC'11, Binjiang, Hangzhou, China, May 10-12, 2011.
- C.33 **M. Shamim Hossain**, D. Elghobary and A. El Saddik, "Ant Based Routing Algorithms for Resource Constrained Networks," in Proc. IEEE-I2MTC'10, Austin, TX, USA, May 3-6, 2010
- C.34 **M. Shamim Hossain**, A. Alamri and A. El Saddik, "QoS-Aware Service Selection for Multimedia Transcoding," in Proc. IEEE-I2MTC'08, Victoria, BC, Canada, May 12-15, 2008.

- C.35 **M. Shamim Hossain**, A. Alamri and A. El Saddik, "A Framework for QoS-aware Multimedia Service Selection for Wireless Clients," ACM Workshop on Wireless Multimedia Networking and Performance Modeling (WMuNeP'07) with MSWiM, Chania, Creta Island, Greece, 22-26 Oct. 2007.
- C.36 **M. Shamim Hossain** and A. El Saddik, "Multimedia content repurposing for heterogeneous Wireless clients," in Proc. IEEE-ICSPC'07, Dubai, UAE, Nov. 24-27, 2007.
- C.37 **M. Shamim Hossain**, M.A. Hossain, and A. El Saddik "Multimedia Content Repurposing in Ambient Intelligent Environment," in Proc. IEEE-AIMS'07 (with Intl. Conf. Data Engineering-ICDE), Istanbul, Turkey, April 20, 2007.
- C.38 **M. Shamim Hossain** and A. El Saddik, "Proxy-based Visual Content Repurposing using Selection Algorithm," in Proc. IEEE-ICN'07, Martinique, French Caribbean, April 22 - 28, 2007.
- C.39 **M. Shamim Hossain** and A. El Saddik, "Multimedia Content Repurposing in Heterogeneous Network Environments," in Proc. IEEE ICECE'06, Dhaka, Bangladesh, Dec. 19-21, 2006.
- C.40 M.A. Hossain, **M. Shamim Hossain** and A. El Saddik, "Ambient Intelligence Multimedia Management Framework," in Proc. IEEE AICS'06, Sheffield, UK, Sept. 7-8, 2006.
- C.41 **M. Shamim Hossain** and A. El Saddik "Scalability Analysis for Personalized Multimedia Repurposing System," in Proc. IEEE Instrumentation and Measurement Technology Conference (IEEE-IMTC'06), Sorrento, Italia, 24-27 April 2006.