

Curriculum Vitae

Name: Schahram DUSTDAR **Full CV:** <http://dsg.tuwien.ac.at/Staff/sd>

Date and place of birth: 26. September 1966, Linz, Austria



Academic Degrees

2003: Venia Docendi (Habilitation), Computer Science, Vienna University of Technology
1992: Doctorate degree, Business Informatics, Johannes Kepler University Linz
1990: Master degree, Business Informatics, Johannes Kepler University Linz

Positions Held

2005/7 - : Full Professor of Computer Science at Vienna University of Technology
2004 - 2010: Honorary Full Professor of Information Systems, University of Groningen, The Netherlands
2003 - 2005: Associate Professor, Vienna University of Technology
2001 - 2003: Assistant Professor, Vienna University of Technology
1999 - 2007: Co-Founder and Chief Scientist at Caramba Labs Software AG
1991 - 1999: Head of the Informatics Data Center, University of Art & Industrial Design, Linz, Austria
1987- 1991: Research Assistant, Institut für Wirtschaftsinformatik, University of Linz, Austria

Short term and invited Positions

2019+: Honorary Visiting Professor UPF, Barcelona, Spain
2019/20: Visiting Professor, University of Southern California, Center for Cyber-Physical Systems and the Internet of Things USC Viterbi School of Engineering
2016/7: Visiting Professor University of California at Berkeley, Industrial Cyber-Physical Systems Center (with Prof. Edward Lee)
2016/12: Visiting Professor University of Sevilla, Spain (with Prof. Antonio Ruiz-Cortez)
1998: Visiting senior research scientist, NTT Multimedia Research Lab, Palo Alto, USA
1993 – 1994: Post-Doctoral Research Fellow, London School of Economics, Information Systems Department

CV Scientific profile highlight

Prof. Dustdar has an international reputation as a leader in computer science in the field of Internet Technologies, Distributed Systems, and Internet of Things, in particular. He has

published extensively with his work on (a) Elastic Software Systems as well as his work on (b) Internet of Things combined with Cloud Computing. The impact of this work is clear within both the scientific community and also with industry. For example, Pacific Controls has invested over €3.5M in Prof. Dustdar's work, with which he set up a Research Lab focusing on novel technologies for Internet of Things and Smart Cities.

He has also a track record in start-ups, having co-founded one company (Caramba Labs Software AG) and sold it before joining the university. Scientifically, Prof. Dustdar's research has led to multiple best paper awards, most recently at IEEE ICCI*CC 2018 in Cognitive Computing, IEEE SCC 2016, and ICSOC 2014, both leading conferences on service-oriented computing. He has been ranked #5 author (h-index) worldwide in the domain of World Wide Web research (last 10 years) in the Microsoft Academic search. Further indications of his significant, leading research influence are his **h-Index of 87**, i10-index of 504, **total citations of 43,500** (source: Google Scholar), and cumulative downloads from ACM of more than 40,000, with an average download per article of ~516.

More recently, Dustdar is listed on global rank ~389 of the Top 1000 international scientists in Computer Science [<http://research.com/>]. Dustdar became listed in the listing of the **Top 5 Computer Scientists** in the area of Cloud Computing for "individual productivity" and thus secured a rank number 2 for the TU Wien for the Top 15 cited affiliations globally [see L. Heilig and S. Voß (2014), A Scientometric Analysis of Cloud Computing Literature, IEEE Transactions on Cloud Computing, Vol 1, 1, 2014.]. **Top 3 in Europe on Distributed Systems and Top 30 globally** in Distributed Systems (Google Scholar). Prof. Dustdar has extensive leadership experience, having consistently led a research group of 35 researchers over the past 10 years in his DSG. In particular, his leadership in establishing a research lab funded by an industrial partner, Pacific Controls, is highly relevant to TU Vienna's positioning as an innovative leader in the Engineering domain. In this lab, he successfully married the requirements for scientific excellence with applied industry needs by establishing a research unit working on scientific foundations as well as on software prototypes for Smart Cities. Prof. Dustdar's leadership status is also manifest in his frequent invitations as a Keynote speaker (averaging one invited talk per month in the last 5 years) at conferences in academia as well as industry. In the last 6 years alone, Prof. Dustdar has also been involved in **many European and National research projects with a total value in excess of €90M, including ca. €25M funding for the TU Vienna.**

In summary, under Prof. Dustdar's leadership, the Distributed Systems Group (DSG) at the TU Vienna has developed an international reputation as one of the top groups in its field, hosting some 20 international visitors for collaborations between 3 weeks and 6 months over the last 5 years, and focusing significantly on the technological foundations for innovative Internet technologies and Distributed Systems, in general. Prof. Dustdar has had over 25 years of outstanding success as a researcher, academic, and entrepreneurial research leader. He has been a singularly active advocate for his discipline, having successfully executed dozens of editorial and organizational roles for leading journals and conferences. Dustdar successfully supervised and lead **42 PhD students to completion**. He is internationally recognized for his fundamental yet wide-ranging research and his vision, drive, and leadership has had a strong impact on the ranking and visibility of TU Vienna, and the faculty of Informatics, in particular.

Awards, Distinctions, Academy Memberships, Industrial Innovation (selection)

- ACM Distinguished Speaker Award, (2021)
- IEEE TCI Distinguished Service Award (2021)
- IEEE TCSC Award for Excellence in Scalable Computing (2019).
- IEEE TCSVC Outstanding Leadership Award, for Outstanding Leadership in Services Computing, 2018
- Best Paper Award: Riveni M., Dustdar S. (2018). Trust and Interaction-type considerations in Multi-objective Team Compositions for Human-computation. 17th IEEE International Conference Series on Cognitive Informatics and Cognitive Computing (ICCI*CC 2018), July 16-18, 2018, Berkeley, CA, USA
- Elected Chair of the Informatics Section at the Academia Europaea: The Academy of Europe, since 2016
- IEEE Fellow (2016). For contributions to Elastic Computing
- Member of the Academia Europaea: The Academy of Europe, (2013)
- Best paper Award: An Elasticity-aware Governance Platform for Cloud Service Delivery. Mueller C., Truong H.-L., Fernandez P., Copil G., Ruiz-Cortes A., Dustdar S. (2016). 13th IEEE International Conference on Services Computing (SCC 2016), June 27 - July 2, 2016, San Francisco
- Best Paper Award: ADVISE - a Framework for Evaluating Cloud Service Elasticity Behavior, Copil G., Trihinas D., Truong H.-L., Moldovan D., Pallis G., Dustdar S., Dikaiakos M. , 12th International Conference on Service-Oriented Computing (ICSOC 2014), France, 2014
- Emerald Outstanding Paper Award Winner for the journal paper: Truong H. L., Dustdar S. (2012). A Survey on Cloud-based Sustainability Governance Systems. Published in International Journal of Web Information Systems, 2013
- Recipient of the IBM Faculty Award 2012
- Best Paper Award: A Novel Approach to Modeling Context-Aware and Social Collaboration Processes. Liptchinsky V., Khazankin R., Truong H.L., Dustdar S., 24th International Conference on Advanced Information Systems Engineering (CAiSE 2012), Poland, 2012
- Best Paper Award: Programming Hybrid Services in the Cloud. Truong H.L, Dustdar S., Bhattacharya K., 10th International Conference on Service-Oriented Computing (ICSOC 2012), China, 2012
- Best Paper Award - Runner-Up: Who Do You Call? Problem Resolution through Social Compute Units. Sengupta B., Jain A., Bhattacharya K., Truong H.L., Dustdar S., 10th International Conference on Service-Oriented Computing (ICSOC 2012), China, 2012
- Best Paper Award: Identifying Important Action Primitives for High Level Activity Recognition. A. Manzoor, C. Villalonga, A. Calatroni, H. Truong, D. Roggen, S. Dustdar, G. Tröster, 5th European Conference on Smart Sensing and Context 2010, Germany, 2010
- ACM Distinguished Scientist Award, 2009

Editorial Responsibilities (selection)

- ACM Transactions on Internet of Things (since 2018) -- Founding Co-Editor in Chief
- Computing (since 2009) Springer (SCI ranked journal) – Editor in Chief
- ACM Computing Surveys (since April 2020)- Associate Editor
- ACM Transactions on Internet Technology (2012) – Associate Editor
- ACM Transactions on the Web (2008) – Associate Editor
- IEEE Computing (since 2015) – Associate Editor for Cloud Computing
- IEEE Transactions on Services Computing (since 2008) - Associate Editor
- IEEE Transactions on Cloud Computing (since 2017) – Associate Editor

- IEEE Internet Computing – Editorial Board & Department Editor for Web-scale Workflow (since 2010)
- Service oriented Computing and Applications, Springer (since 2006) - Associate editor

Journal publications

1. Chen C., Yao G., Liu L., Pei Q., Song H., Dustdar S. (2023). [A Cooperative Vehicle-Infrastructure System for Road Hazards Detection With Edge Intelligence](#). *IEEE Transactions on Intelligent Transportation Systems*
2. Li K., Wang X., He Q., Yang M., Huang M., Dustdar S. (2023). [Task Computation Offloading for Multi-access Edge Computing via Attention Communication Deep Reinforcement Learning](#). *IEEE Transactions on Services Computing*
3. Arleo A., Tsigkanos C., Leite R. A., Dustdar S., Miksch S., Sorger J. (2023). [Visual Exploration of Financial Data with Incremental Domain Knowledge](#). *Computer Graphics Forum*
4. Zhang Z., Hu J., Xu X., Wang G., Dustdar S., Chen S. (2023). [Functional importance evaluation approach for cloud manufacturing services based on complex network and evidential reasoning rule](#). *Computers & Industrial Engineering*, Volume 175, pp. 108895: 1 - 108895: 14
5. Guo F., Xiao X., Hecker A., Dustdar S. (2023). [A Theoretical Model Characterizing Tangle Evolution in IOTA Blockchain Network](#). *IEEE Internet of Things Journal*, Volume 10, Issue 2, pp. 1259-1273
6. Iftikhar S., Gill S. S., Song C., Xu M., Aslanpour M. S., Toosi A. N., Du J., Wu H., Ghosh S., Chowdhury D., Golec M., Kumar M., Abdelmoniem A. M., Cuadrado F., Varghese B., Rana O., Dustdar S., Uhlig S. (2023). [AI-based fog and edge computing: A systematic review, taxonomy and future directions](#). *Internet of Things*, Volume 21, pp. 100674: 1 - 100674: 41
7. Zhu S., Yu T., Xu T., Chen H., Dustdar S., Gigan S., Gunduz D., Hossain E., Jin Y., Lin F., Liu B., Wan Z., Zhang J., Zhao Z., Zhu W., Chen Z., Durrani T. S., Wang H., Wu J., Zhang T., Pan Y. (2023). [Intelligent Computing: The Latest Advances, Challenges and Future](#). *Intelligent Computing*
8. Zhao H., Deng S., Chen F., Yin J., Dustdar S., Zomaya A. (2023). [Learning to Schedule Multi-Server Jobs with Fluctuated Processing Speeds](#). *IEEE Transactions on Parallel and Distributed Systems*, Volume 34, Issue 1, pp. 234-245
9. Dai X., Xiao Z., Jiang H., Chen H., Min G., Dustdar S., Cao J. (2023). [A Learning-based Approach for Vehicle-to-Vehicle Computation Offloading](#). *IEEE Internet of Things Journal*
10. Cao H., Jiang H., Liu D., Wang R., Min G., Liu J., Dustdar S., Lui J. C. S. (2023). [LiveProbe: Exploring Continuous Voice Liveness Detection via Phonemic Energy Response Patterns](#). *IEEE Internet of Things Journal*
11. Dai X., Xiao Z., Jiang H., Alazab M., Lui J. C. S., Dustdar S., Liu J. (2023). [Task Co-Offloading for D2D-Assisted Mobile Edge Computing in Industrial Internet of Things](#). *IEEE Transactions on Industrial Informatics*, Volume 19, Issue 1, pp. 480-490
12. Dai X., Xiao Z., Jiang H., Alazab M., Lui J. C. S., Min G., Dustdar S., Liu J. (2023). [Task Offloading for Cloud-Assisted Fog Computing With Dynamic Service Caching in Enterprise Management Systems](#). *IEEE Transactions on Industrial Informatics*, Volume 19, Issue 1, pp. 662-672
13. Laso S., Berrocal J., Fernandez P., García J. M., Garcia-Alonso J., Murillo J. M., Ruiz-Cortés A., Dustdar S. (2022). [Elastic Data Analytics for the Cloud-to-Things Continuum](#). *IEEE Internet Computing*, Volume 26, Issue 6, pp. 42-49
14. Bhattacharya S., Victor N., Chengoden R., Ramalingam M., Selvi G. C., Reddy Maddikunta P. K., Donta P. K., Dustdar S., Jhaveri R. H., Reddy Gadekallu T. (2022). [Blockchain for Internet of Underwater Things: State-of-the-Art, Applications, Challenges, and Future Directions](#). *Sustainability*, Volume 14, Issue 23, pp. 15659: 1 - 15659: 21

15. Hossein Motlagh N., Loven L., Cao J., Liu X., Nurmi P., Dustdar S., Tarkoma S., Su X. (2022). [Edge Computing: The Computing Infrastructure for the Smart Megacities of the Future](#). *Computer*, Volume 55, Issue 12, pp. 54-64
16. Ren P., Qiao X., Huang Y., Liu L., Pu C., Dustdar S. (2022). [Fine-Grained Elastic Partitioning for Distributed DNN Towards Mobile Web AR Services in the 5G Era](#). *IEEE Transactions on Services Computing*, Volume 15, Issue 6, pp. 3260-3274
17. Ren P., Qiao X., Huang Y., Liu L., Pu C., Dustdar S., Chen J. (2022). [Edge AR X5: An Edge-Assisted Multi-User Collaborative Framework for Mobile Web Augmented Reality in 5G and Beyond](#). *IEEE Transactions on Cloud Computing*, Volume 10, Issue 4, pp. 2521-2537
18. Zhao H., Deng S., Liu Z., Xiang Z., Yin J., Dustdar S., Zomaya A. Y. (2022). [DPoS: Decentralized, Privacy-Preserving, and Low-Complexity Online Slicing for Multi-Tenant Networks](#). *IEEE Transactions on Mobile Computing*, Volume 21, Issue 12, pp. 4296-4309
19. Zhu Y., Huang Y., Qiao X., Tan Z., Bai B., Ma H., Dustdar S. (2022). [A Semantic-Aware Transmission with Adaptive Control Scheme for Volumetric Video Service](#). *IEEE Transactions on Multimedia*
20. Tsigkanos C., Bersani M. M., Frangoudis P. A., Dustdar S. (2022). [Edge-Based Runtime Verification for the Internet of Things](#). *IEEE Transactions on Services Computing*, Volume 15, Issue 5, pp. 2713-2727
21. Huang Y., Zhu Y., Qiao X., Su X., Dustdar S., Zhang P. (2022). [Toward Holographic Video Communications: A Promising AI-driven Solution](#). *IEEE Communications Magazine*, Volume 60, Issue 11, pp. 82-88
22. Murturi I., Dustdar S. (2022). [A Decentralized Approach for Resource Discovery using Metadata Replication in Edge Networks](#). *IEEE Transactions on Services Computing*, Volume 15, Issue 5, pp. 2526-2537
23. Dao N.-N., Do T.-H., Cho S., Dustdar S. (2022). [Information Revealed by Vision: A Review on the Next-Generation OCC Standard for AIoV](#). *IT Professional*, Volume 24, Issue 4, pp. 58-65
24. Sharghivand N., Mashayekhy L., Ma W., Dustdar S. (2022). [Time-Constrained Service Handoff for Mobile Edge Computing in 5G](#). *IEEE Transactions on Services Computing*
25. Avasalcai C., Tsigkanos C., Dustdar S. (2022). [Resource Management for Latency-Sensitive IoT Applications with Satisfiability](#). *IEEE Transactions on Services Computing*, Volume 15, Issue 5, pp. 2982-2993
26. Vila M., Casamayor-Pujol V., Dustdar S., Teniente E. (2022). [Edge-to-cloud sensing and actuation semantics in the industrial Internet of Things](#). *Pervasive and Mobile Computing*, Volume 87, pp. 101699: 1 - 101699: 18
27. Xiao Z., Shu J., Jiang H., Lui J. C. S., Min G., Liu J., Dustdar S. (2022). [Multi-Objective Parallel Task Offloading and Content Caching in D2D-aided MEC Networks](#). *IEEE Transactions on Mobile Computing*
28. Huang Y., Qiao X., Lai W., Dustdar S., Zhang J., Li J. (2022). [Enabling DNN Acceleration With Data and Model Parallelization Over Ubiquitous End Devices](#). *IEEE Internet of Things Journal*, Volume 9, Issue 16, pp. 15053-15065
29. Allahbakhsh M., Amintoosi H., Dustdar S., Motahari Nezhad H. R. (2022). [Sharing Reputation Data Across Online Communities](#). *IEEE Internet Computing*, Volume 26, Issue 4, pp. 60-67
30. Almurshed O., Rana O., Li Y., Ranjan R., Jha D. N., Patel P., Jayaraman P. P., Dustdar S. (2022). [A Fault-Tolerant Workflow Composition and Deployment Automation IoT Framework in a Multicloud Edge Environment](#). *IEEE Internet Computing*, Volume 26, Issue 4, pp. 45-52
31. Xiao Z., Chen Y., Jiang H., Hu Z., Lui J. C. S., Min G., Dustdar S. (2022). [Resource management in UAV-assisted MEC: state-of-the-art and open challenges](#). *Wireless Networks*, Volume 28, Issue 7, pp. 3305-3322
32. Siddiqui S., Hameed S., Shah S. A., Ahmad I., Aneiba A., Draheim D., Dustdar S. (2022). [Toward Software-Defined Networking-Based IoT Frameworks: A Systematic Literature Review, Taxonomy, Open Challenges and Prospects](#). *IEEE Access*, Volume 10, pp. 70850-70901

33. Yang Y., Ma M., Wu H., Yu Q., Zhang P., You X., Wu J., Peng C., Yum T.-S. P., Shen S., Aghvami H., Li G. Y., Wang J., Liu G., Gao P., Tang X., Cao C., Thompson J., Wong K.-K., Chen S., Wang Z., Debbah M., Dustdar S., Eliassen F., Chen T., Duan X., Sun S., Tao X., Zhang Q., Huang J., Cui S., Zhang W., Li J., Gao Y., Zhang H., Chen X., Ge X., Xiao Y., Wang C.-X., Zhang Z., Ci S., Mao G., Li C., Shao Z., Zhou Y., Liang J., Li K., Wu L., Sun F., Wang K., Liu Z., Yang K., Wang J., Gao T., Shu H. (2022). [6G Network AI Architecture for Everyone-Centric Customized Services](#). *IEEE Network*
34. Sudharsan B., Breslin J. G., Tahir M., Ali M. I., Rana O., Dustdar S., Ranjan R. (2022). [OTA-TinyML: Over the Air Deployment of TinyML Models and Execution on IoT Devices](#). *IEEE Internet Computing*, Volume 26, Issue 3, pp. 69-78
35. Lachner C., Laufer J., Dustdar S., Pohl K. (2022). [A Data Protection Focused Adaptation Engine for Distributed Video Analytics Pipelines](#). *IEEE Access*, Volume 10, pp. 68669-68685
36. Xu X., Xu X., Shi P., Ye Z., Bai Y., Zhang S., Dustdar S., Wang G. (2022). [Data classification based on attribute vectorization and evidence fusion](#). *Applied Soft Computing*, Volume 121, pp. 108712: 1 - 108712: 21
37. Wen Z., Hu H., Yang R., Qian B., Sham R., Sun R., Xu J., Patel P., Rana O., Dustdar S., Ranjan R. (2022). [Orchestrating Networked Machine Learning Applications Using Autosteer](#). *IEEE Internet Computing* Volume 26, Issue 6, pp. 51-58
38. Zhao H., Deng S., Liu Z., Yin J., Dustdar S. (2022). [Distributed Redundant Placement for Microservice-based Applications at the Edge](#). *IEEE Transactions on Services Computing*, Volume 15, Issue 3, pp. 1732-1745
39. Shen X., Jiang H., Liu D., Yang K., Deng F., Lui J. C. S., Liu J., Dustdar S., Luo J. (2022). [PupilRec: Leveraging Pupil Morphology for Recommending on Smartphones](#). *IEEE Internet of Things Journal*, Volume 9, Issue 17, pp. 15538-15553
40. Huang Y., Qiao X., Ren P., Liu L., Pu C., Dustdar S., Chen J. (2022). [A Lightweight Collaborative Deep Neural Network for the Mobile Web in Edge Cloud](#). *IEEE Transactions on Mobile Computing*, Volume 21, Issue 7, pp. 2289-2305
41. Sun S., Dustdar S., Ranjan R., Morgan G., Dong Y., Wang L. (2022). [Remote Sensing Image Interpretation with Semantic Graph-based Methods: A Survey](#). *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, Volume 15, pp. 4544-4558
42. Murturi I., Dustdar S. (2022). [DECENT: A Decentralized Configurator for Controlling Elasticity in Dynamic Edge Networks](#). *ACM Transactions on Internet Technology*, Volume 22, Issue 3, Article No.: 78, pp. 1–21
43. Weng X., Xu X., Chang L., Hou P., Wang G., Dustdar S. (2022). [Evidence fusion-based alarm system design considering coarse and fine changes of process variable](#). *Journal of Process Control*, Volume 113, pp. 68-79
44. Dehury C. K., Srirama S. N., Donta P. K., Dustdar S. (2022). [Securing clustered edge intelligence with blockchain](#). *IEEE Consumer Electronics Magazine*
45. Huang Y., Qiao X., Dustdar S., Zhang J., Li J. (2022). [Toward Decentralized and Collaborative Deep Learning Inference for Intelligent IoT Devices](#). *IEEE Network*, Volume 36, Issue 1, pp. 59-68
46. Zhang Z., Xu X., Zhang X., Xu X., Ye Z., Wang G., Dustdar S. (2022). [Intelligent identification for vertical track irregularity based on multilevel evidential reasoning rule model](#). *Applied Intelligence*, Volume 52, Issue 14, pp. 16555-16571
47. Dehury C. K., Srirama S. N., Donta P. K., Dustdar S. (2022). [Securing clustered edge intelligence with blockchain](#). *IEEE Consumer Electronics Magazine*
48. Gill S. S., Xu M., Ottaviani C., Patros P., Bahsoon R., Shaghghi A., Golec M., Stankovski V., Wu H., Abraham A., Singh M., Mehta H., Ghosh S. K., Baker T., Parlikad A. K., Lutfiyya H., Kanhere S. S., Sakellariou R., Dustdar S.,

- Rana O., Brandic I., Uhlig S. (2022). [AI for Next Generation Computing: Emerging Trends and Future Directions](#). *Internet of Things*, Volume 19, pp. 100514:1 - 100514:34
49. Huang C., Yao L., Wang X., Sheng Q. Z., Dustdar S., Wang Z., Xu X. (2022). [Intent-Aware Interactive Internet of Things for Enhanced Collaborative Ambient Intelligence](#). *IEEE Internet Computing*, Volume 26, Issue 5, pp. 68-75
 50. Hazra A., Donta P. K., Amgoth T., Dustdar S. (2022). [Cooperative Transmission Scheduling and Computation Offloading with Collaboration of Fog and Cloud for Industrial IoT Applications](#). *IEEE Internet of Things Journal*
 51. Lan D., Taherkordi A., Eliassen F., Liu L., Delbruel S., Dustdar S., Yang Y. (2022). [Task Partitioning and Orchestration on Heterogeneous Edge Platforms: The Case of Vision Applications](#). *IEEE Internet of Things Journal*, Volume 9, Issue 10, pp. 7418 - 7432
 52. Ding A. Y., Peltonen E., Meuser T., Aral A., Becker C., Dustdar S., Hiessl T., Kranzlmüller D., Liyanage M., Magshudi S., Mohan N., Ott J., Rellermeier J. S., Schulte S., Schulzrinne H., Solmaz G., Tarkoma S., Varghese B., Wolf L. (2022). [Roadmap for Edge AI: A Dagstuhl Perspective](#). *Computer Communication Review*, Volume 52, Issue 1, pp. 28-33
 53. Gao T., Chen D., Tang Y., Du B., Ranjan R., Zomaya A. Y., Dustdar S. (2022). [Adaptive density peaks clustering: Towards exploratory EEG analysis](#). *Knowledge-Based Systems*, Volume 240, pp. 108123:1 - 108123:14
 54. Deng S., Lv P., Yang G., Dustdar S., Li Y., Ma D., Wu Z., Pan G. (2022). [Darwin-S: A Reference Software Architecture for Brain-Inspired Computers](#). *IEEE Computer*, Volume 55, Issue 5, pp. 51-63
 55. Dustdar S., Casamayor Pujol V., Donta P. K. (2022). [On Distributed Computing Continuum Systems](#). *IEEE Transactions on Knowledge and Data Engineering*
 56. Chen H., Deng S., Zhu H., Zhao H., Jiang R., Dustdar S., Zomaya A. Y. (2022). [Mobility-Aware Offloading and Resource Allocation for Distributed Services Collaboration](#). *Transactions on Parallel and Distributed Systems*, Volume 33, Issue 10, pp. 2428-2443
 57. Deng Z., Wang Y., Liu T., Dustdar S., Ranjan R., Zomaya A. Y., Liu Y., Wang L. (2022). [Spatial-Keyword Skyline Publish/Subscribe Query Processing over Distributed Sliding Window Streaming Data](#). *IEEE Transactions on Computers*, Volume 71, Issue 10, pp. 2659 - 2674
 58. Deng S., Zhao H., Xiang Z., Zhang C., Jiang R., Li Y., Yin J., Dustdar S., Zomaya A. Y. (2022). [Dependent Function Embedding for Distributed Serverless Edge Computing](#). *IEEE Transactions on Parallel and Distributed Systems*, Volume 33, Issue 10, pp. 2346-2357
 59. Dao N-N, Vu D-N, Tran A-T, Phan T. V., Dustdar S., Cho S. (2022). [On System Stability in Multitier Roadside Computing Toward an Intelligent Transportation](#). *IEEE Transactions on Network Science and Engineering*, Volume 9, Issue 3, pp. 1128-1138
 60. Murturi I., Egyed A., Dustdar S. (2022). [Utilizing AI Planning on the Edge](#). *IEEE Internet Computing*, Volume 26, Issue 2, pp. 28-35
 61. Avasalcai C., Zarrin B., Dustdar S. (2022). [EdgeFlow - Developing and Deploying Latency-Sensitive IoT Edge Applications](#). *IEEE Internet of Things Journal*, Volume 9, Issue 5, pp. 3877-3888
 62. Jandl A., Frangoudis P. A., Dustdar S. (2022). [Edge-Based Autonomous Management of Vertical Farms](#). *IEEE Internet Computing*, Volume 26, Issue 1, pp. 68-75
 63. Yin J., Xi M., Deng S., Tan S., Chen J., Wei Y., Wu Z., Dustdar S. (2022). [A Service Pattern-Oriented Computing Architecture for Service Ecosystems](#). *IEEE Internet Computing*, Volume 26, Issue 1, pp. 51-59
 64. Tuli S., Gill S. S., Xu M., Garraghan P., Bahsoon R., Dustdar S., Sakellariou R., Rana O., Buyya R., Casale G., Jennings N. R. (2022). [HUNTER: AI based holistic resource management for sustainable cloud computing](#). *Journal of Systems and Software*, Volume 184, pp. 111124:1 - 111124:15

65. Patros P., Spillner J., Papadopoulos A. V., Varghese B., Rana O., Dustdar S. (2021). [Toward Sustainable Serverless Computing](#). *IEEE Internet Computing*, Volume 25, Issue 6, pp. 42-50
66. Avasalcai C., Tsigkanos C., Dustdar S. (2021). [Adaptive Management of Volatile Edge Systems at Runtime With Satisfiability](#). *ACM Transactions on Internet Technology*, Volume 22, Issue 1, pp. 26:1 - 26:21
67. Mazzara M., Dragoni N., Bucchiarone A., Giaretta A., Larsen S. T., Dustdar S. (2021). [Microservices: Migration of a Mission Critical System](#). *IEEE Transactions on Services Computing*, Volume 14, Issue 5, pp. 1464-1477
68. Casamayor Pujol V., Dustdar S. (2021). [Fog Robotics - Understanding the Research Challenges](#). *IEEE Internet Computing*, Volume 25, Issue 5, pp. 10-17
69. Varghese B., de Lara E., Ding A., Hong C.-H., Bonomi F., Dustdar S., Harvey P., Hewkin P., Shi W., Thiele M., Willis P. (2021). [Revisiting the Arguments for Edge Computing Research](#). *IEEE Internet Computing*, Volume 25, Issue 5, pp. 36-42
70. Hasselbring W., Wojcieszak M., Dustdar S. (2021). [Control Flow Versus Data Flow in Distributed Systems Integration: Revival of Flow-Based Programming for the Industrial Internet of Things](#). *IEEE Internet Computing*, Volume 25, Issue 4, pp. 5-12
71. Bjørndal N., de Araújo L. J. P., Bucchiarone A., Dragoni N., Mazzara M., Dustdar S. (2021). [Benchmarks and performance metrics for assessing the migration to microservice-based architectures](#). *Journal of Object Technology*, Volume 20, Issue 2, pp. 3:1 - 3:17
72. Karagiannis V., Frangoudis P. A., Dustdar S., Schulte S. (2021). [Context-Aware Routing in Fog Computing Systems](#). *IEEE Transactions on Cloud Computing*
73. Ristov S., Fahringer T., Prodan R., Kostoska M., Gusev M., Dustdar S. (2021). [Interhost Orchestration Platform Architecture for Ultrascale Cloud Applications](#). *IEEE Internet Computing*, Volume 25, Issue 3, pp. 23-30
74. Sudharsan B., Patel P., Breslin J., Ali M. I., Mitra K., Dustdar S., Rana O., Jayaraman P. P., Ranjan R. (2021). [Toward Distributed, Global, Deep Learning Using IoT Devices](#). *IEEE Internet Computing*, Volume 25, Issue 3, pp. 6-12
75. Weng X., Xu X., Bai Y., Ma F., Wang G., Dustdar S. (2021). [A data-driven industrial alarm decision method via evidence reasoning rule](#). *Journal of Process Control*, Volume 105, pp. 15-26
76. Dustdar S., Fernandez P., García J. M., Ruiz-Cortés A. (2021). [Elastic Smart Contracts in Blockchains](#). *IEEE/CAA Journal of Automatica Sinica*, Volume 8, Issue 12, pp. 1901-1912
77. Jiang H., Wang M., Zhao P., Xiao Z., Dustdar S. (2021). [A Utility-Aware General Framework With Quantifiable Privacy Preservation for Destination Prediction in LBSs](#). *IEEE/ACM Transactions on Networking*, Volume 29, Issue 5, pp. 2228-2241
78. Zhang Z., Xu X., Chen P., Wu X., Xu X., Wang G., Dustdar S. (2021). [A novel nonlinear causal inference approach using vector-based belief rule base](#). *International Journal of Intelligent Systems*, Volume 36, Issue 9, pp. 5005-5027
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