Mustafa MISIR[1,2,3,4,5,6,7]

Curriculum Vitæ

Division of Natural and Applied Sciences
Duke Kunshan University
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Turkish Citizen

Education

Ph.D. KU Leuven, Computer Science, 2009–2012. Advisors: Patrick De Causmaecker, Greet Vanden Berghe and Katja Verbeeck
M.Sc. Yeditepe University, Computer Engineering, 2007–2008. Advisor: Ender Özcan
B.Sc. Yeditepe University, Computer Engineering, 2002–2007. Advisor: Ender Özcan

Other Educational Activities

Learning and Innovation Fellowship (LIF) Programme by Duke Kunshan U & Duke U, 2021
Operations Management Summer Camp by Lee Kong Chian School of Business @ Singapore MU, 2014
Program Analysis and Verification Spring School by Labex Digicosme @ Supelec, 2013
A Forum in Computation, Inference and Optimization by Michael Jordan (U.C. Berkeley) @ IHES, 2013
Symposium on OR Problems and AI Techniques by KU Leuven & VUB @ KU Leuven, 2011
Dynadec/COMET Training by Pascal Van Hentenryck (Brown U.) @ Louvain-la-Neuve, 2009
Hyper-heuristics Summer School by Rong Qu & Gabriela Ochoa (U. Nottingham) @ Istanbul TU, 2007

Experience

July 2021– ∼	Associate Professor, Data and Computational Science, Division of Natural and Applied Sciences, Data Science Major Coordinator (July 2023–∼) & Leading the Machine lEarning and Operations Research (MEmORy) Lab[8], Duke Kunshan University, China
Apr. 2019–June 2021	Associate Professor (Chair), Department of Computer Engineering / Vice Dean of Engineering & Vice Chair of the Medical Artificial Intelligence Research and Application Center (TYZAUM)[9] & Leading the Machine lEarning and Operations Research (MEmORy) Lab, Istinye University, Türkiye
Apr. 2016–Apr. 2019	Associate Professor, Leading the Machine lEarning and Operations Research (MEmORy) Lab, Institute of Machine Learning and Computational Intelligence, College of Computer Science and Technology, Nanjing University of Aeronautics and Astronautics, China
Jan. 2015–Mar. 2016	Postdoctoral Researcher, Machine Learning for Automated Algorithm Design (ML4AAD) Research Group, Department of Computer Science, University of Freiburg, Germany
Nov. 2013–Jan. 2015	Postdoctoral Researcher, Living Analytics Research Centre (LARC) (a joint institute with Carnegie Mellon University), School of Information Systems, Singapore Management University, Singapore
Oct. 2012–Nov. 2013	Postdoctoral Researcher (ERCIM Marie Curie Fellow), Machine Learning and Optimisation (TAO) Team, LRI, Université Paris-Sud XI - INRIA Saclay, France

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[4] https://scopus.com/authid/detail.uri?authorId=36458858100
[5] https://publons.com/researcher/2847814/mustafa-misir/
[6] https://dblp.org/pid/51/8572.html
[7] https://linkedin.com/in/mustafa-misir-2193213/
[8] http://memoryrlab.github.io
[9] http://tyzaum.istinye.edu.tr/en

Oct. 2013–Oct. 2013	Visiting Researcher, Dynamic and Distributed Information Systems (DDIS) Group, Department of Informatics, University of Zurich, Switzerland
June 2013–June 2013	Visiting Researcher, Laboratory for Relational Algorithmics, Complexity and Learning (LARCA), Department of Software, Universitat Politécnica de Catalunya, Spain
Jan. 2009–Oct. 2012	Doctoral Researcher, Combinatorial Optimisation and Decision Support (CODeS) Research Group, Department of Computer Science, KU Leuven, Belgium
Sept. 2007–Aug. 2008	Research Assistant, Artificial Intelligence (AR+I) Laboratory, Department of Computer Engineering, Yeditepe University, Türkiye
Sept. 2007–Aug. 2008	Teaching Assistant, Department of Computer Engineering, Yeditepe University, Türkiye
June 2007–Sept. 2007	Researcher, Artificial Intelligence (AR+I) Laboratory, Department of Computer Engineering, Yeditepe University, Türkiye
Dec. 2005–June 2007	Software Developer, Logic Information Systems & Consultant Plc., Türkiye
Sept. 2006–June 2007	Student Assistant, Department of Computer Engineering, Yeditepe University, Türkiye
July 2006–Aug. 2006	Intern as a Software Developer, Nortel Networks Netas R&D, Türkiye
June 2005–Sept. 2005	Intern as a Database Developer, Data Automation Center, Yeditepe University, Türkiye
June 2005–Sept. 2005	Intern as a Research Assistant, Network Laboratory, Department of Computer Engineering, Yeditepe University, Türkiye

Teaching /∼ Assistance

Spring 2024	Elements of Machine Learning (COMPSCI 309) [X students], Design and Analysis of Algorithms (COMPSCI 308) [X students] @ Duke Kunshan University
Fall 2023	Principles of Machine Learning (STATS 302) [11 students], Introduction to Databases (COMPSCI 310) [8 students] @ Duke Kunshan University
Spring 2023	Introduction to Computer Science (COMPSCI 101) [33 students], Elements of Machine Learning (COMPSCI 309) [7 students], Automated Machine Learning (AutoML – Signature Work Mini-Term) [18 Students] @ Duke Kunshan University
Fall 2022	Principles of Machine Learning (STATS 302) [9 students], Design and Analysis of Algorithms (COMPSCI 308) [3 students] @ Duke Kunshan University
Spring 2022	Introduction to Data Science (STATS 102) [25 students] @ Duke Kunshan University
Fall 2021	Principles of Machine Learning (STATS 302) [22 students] @ Duke Kunshan University
Spring 2020	Data Mining (ENT018) [11 students], Database Systems (ISE204 / ENT019) [32 students] @ Department of Computer Engineering, Istinye University
Fall 2020	Principles of Artificial Intelligence (COE207) [50 + 52 students], Machine Learning (ENS305) [2 students] @ Department of Computer Engineering, Istinye University
Spring 2019	Principles of Artificial Intelligence (COE206) [10 students], Neural Networks and Machine Learning (YAZ 304) [15 students] @ Department of Computer Engineering, Istinye University
Fall 2019	Problem Solving with Computers in C (COE201) [8 students], Computational Thinking (XXE103) [140 (Section 1: 67; Section 2: 73) students] @ Department of Computer Engineering, Istinye University
Spring 2019	Machine Learning with Python (Artificial Intelligence Workshop) [30 students] @ Department of Computer Engineering, Istinye University
Fall 2018	Modern Software Development Technology (1610311W) @ College of Computer Science and Technology, Nanjing University of Aeronautics and Astronautics
Spring 2017	Knowledge Management (1610308W) @ College of Computer Science and Technology, Nanjing University of Aeronautics and Astronautics
Fall 2017	Modern Software Development Technology (1610311W) @ College of Computer Science and Technology, Nanjing University of Aeronautics and Astronautics
Fall 2016	Modern Software Development Technology (1610311W), Software Development/+ Methods Experiment (16302180/+90), Data Mining @ College of Computer Science and Technology, Nanjing University of Aeronautics and Astronautics
Fall 2015	Machine Learning and Optimization for Algorithm Design @ Department of Computer Science, University of Freiburg

Fall 2014	Guided Research in Information Systems (IS470) @ School of Information Systems, Singapore Management University
Fall 2010	Optimisation Techniques (59235) @ Department of Computer Science, KU Leuven
Spring 2008	Data Structures (CSE211), Software Engineering (CSE344), Data Communications & Computer Networks (CSE471), Special Topics in Computer Networks (CSE402) @ Department of Computer Engineering, Yeditepe University
Fall 2007	Data Structures (CSE211), Introduction to Artificial Intelligence (CSE462), Software Engineering (CSE344) @ Department of Computer Engineering, Yeditepe University
Spring 2007	Computer Programming Practices (CSE112), Principles of Programming Languages (CSE252), Analysis of Algorithms (CSE311) @ Department of Computer Engineering, Yeditepe University
Fall 2006	Computer Programming Practices (CSE112), Principles of Programming Languages (CSE252), Digital Electronics (CSE321) @ Department of Computer Engineering, Yeditepe University

Collaborators

I have published/submitted/been working on papers with the following 43 co-authors: Floyd A. Beckford (Duke Kunshan U.), Burak Bilgin (KU Leuven), Edmund K. Burke (U. Nottingham/Stirling), Xinye Cai (Nanjing U. Aeronautics & Astronautics), Josep Carmona (U. Politécnica de Catalunya), Patrick De Causmaecker (KU Leuven), Tianlai Chen (Duke Kunshan U.), Shih-Fen Cheng (Singapore Management U.), Peter Demeester (KAHO-KU Leuven), Zhun Fan (Shantou U.), Aldy Gunawan (Singapore Management U.), Daniel Handoko (Singapore Management U.), Frank Hutter (U. Freiburg), Graham Kendall (U. Nottingham), Ahmed Kheiri (U. Nottingham/Cardiff), Hoong Chuin Lau (Singapore Management U.), Jingwei Li (Duke Kunshan U.), Yajuan Lin (Texas A&M U.), Yuanjun Lin (Duke Kunshan U.), Marius Lindauer (U. Freiburg), Jiang Lingxiao (Singapore Management U.), Jiazheng Miao (Duke Kunshan U.), Samadhi Nallaperuma (U. Sheffield), Gabriela Ochoa (U. Nottingham/Stirling), Ender Özcan (U. Nottingham), Joel Ribeiro (U. Politécnica de Catalunya), Michele Sebag (CNRS-INRIA-U. Paris Sud XI), Xiwen Shu (Duke Kunshan U.), Pieter Smet (KU Leuven), Muhammad Sulaman (Nanjing U. Aeronautics & Astronautics), Wenxue Sun (Nanjing U. Aeronautics & Astronautics), Kay Chen Tan (City U. Hong Kong), Wim Vancroonenburg (KU Leuven), Greet Vanden Berghe (KU Leuven), Pieter Vansteenwegen (KU Leuven), Pradeep Varakantham (Singapore Management U.), Katja Verbeeck (KAHO-KU Leuven), Markus Wagner (U. Adelaide), Tony Wauters (KU Leuven), Chao Xia (Nanjing U. Aeronautics & Astronautics), Li Xiang (Singapore Management U.), Tao Xu (Civil Aviation U. China), Huiyuan Zhou (Duke Kunshan U.)

Journal Papers

1. "Deep Learning for Predicting 16S rRNA Copy Number" (joint work with Jiazheng Miao, Tian-Lai Zang and Yajuan Lin), (on submission).
   `https://www.biorxiv.org/content/10.1101/2022.11.26.518038v3`

2. "Algorithm Selection for Protein-Ligand Docking: Strategies and Analysis on ACE" (joint work with Tianlai Chen, Xiwen Shu, Huiyuan Zhou and Floyd A. Beckford), *Scientific Reports*, 13(1), Nature Portfolio, 2023 (SCI – IF: 5.516).
   `https://chemrxiv.org/engage/chemrxiv/article-details/637bc3f374b7b6b5a70684da`
   `https://www.nature.com/articles/s41598-023-35132-5`

3. "A Bi-objective Constrained Robust Gate Assignment Problem: Formulation, Instances and Algorithm" (joint work with Xinye Cai, Wenxue Sun, Qin Kai, K.C. Tan and Zhun Fan), *IEEE Transactions on Cybernetics*, 51(9), IEEE, 2021 (SCI – IF: 11.8).
   `https://ieeexplore.ieee.org/abstract/document/8944038/`

4. "A Case Study of Algorithm Selection for the Traveling Thief Problem" (joint work with Markus Wagner, Marius Lindauer, Samadhi Nallaperuma and Frank Hutter), *Journal of Heuristics (arXiv:1609.00462)*, 24, Springer, 2018 (SCI – IF: 1.129).
   `https://link.springer.com/article/10.1007/s10732-017-9328-y`

5. "ALORS: an Algorithm Recommender System" (joint work with Michele Sebag), *Artificial Intelligence*, 244, Elsevier, 2017 (SCI – IF: 3.034).
https://www.sciencedirect.com/science/article/pii/S0004370216301436

6. "An Analysis of Generalised Heuristics for Vehicle Routing and Personnel Rostering Problems" (joint work with Pieter Smet and Greet Vanden Berghe), *Journal of the Operational Research Society*, 66(5), Palgrave Macmillan, 2015 (SCI – IF: 1.077).
https://link.springer.com/article/10.1057/jors.2014.11

7. "An Investigation on the Generality Level of Selection Hyper-heuristics under Different Empirical Conditions" (joint work with Katja Verbeeck, Patrick De Causmaecker and Greet Vanden Berghe), *Applied Soft Computing*, 13(7), Elsevier, 2013 (SCI – IF: 3.907).
https://www.sciencedirect.com/science/article/pii/S1568494613000604

8. "A New Hyper-heuristic as a General Problem Solver: an Implementation in HyFlex" (joint work with Katja Verbeeck, Patrick De Causmaecker and Greet Vanden Berghe), *Journal of Scheduling*, 16(3), Springer, 2013 (SCI – IF: 1.153).
https://link.springer.com/article/10.1007/s10951-012-0295-8

9. "One Hyperheuristic Approach to Two Timetabling Problems in Health Care" (joint work with Burak Bilgin, Peter Demeester, Wim Vancroonenburg and Greet Vanden Berghe), *Journal of Heuristics*, 18(3), Springer, 2012 (SCI – IF: 1.129).
https://link.springer.com/article/10.1007/s10732-011-9192-0

10. "Monte Carlo Hyper-heuristics for Examination Timetabling" (joint work with Edmund Burke, Graham Kendall and Ender Özcan), *Annals of Operations Research*, 196(1), Springer, 2012 (SCI – IF: 1.864).
https://link.springer.com/article/10.1007/s10479-010-0782-2

11. "A Reinforcement Learning - Great-Deluge Hyper-heuristic for Examination Timetabling" (joint work with Ender Özcan, Gabriela Ochoa and Edmund Burke), *International Journal of Applied Metaheuristic Computing*,

BOOK CHAPTERS

12. "Hyper-heuristics: Autonomous Problem Solvers", *Automated Machine Learning and Search*, Springer, 2021.
https://link.springer.com/chapter/10.1007/978-3-030-72069-8_7

13. "Towards Personalized Data-driven Bundle Design with QoS Constraint" (joint work with Hoong Chuin Lau), *New Ideas in Business and Consumer Analytics*, Springer, 2019.
https://link.springer.com/chapter/10.1007/978-3-030-06222-4_23

14. "A Hyper-heuristic with Learning Automata for the Traveling Tournament Problem" (joint work with Tony Wauters, Katja Verbeeck and Greet Vanden Berghe), *Metaheuristics: Intelligent Decision Making, the 8th Metaheuristics International Conference - Post Conference Volume*, Operations Research/Computer Science Interfaces Series, Springer, 2011.

INTERNATIONAL CONFERENCE / WORKSHOP PAPERS

15. "Characterization of CEC Single-Objective Optimization Competition Benchmarks and Algorithms", in *the IEEE Symposium Series on Computational Intelligence (SSCI)*, Mexico, 2023.

16. "An Adaptive Large Neighborhood Search for Heterogeneous Vehicle Routing Problem with Time Windows" (joint work with Aldy Gunawan, Minh Pham Kien Nguyen, Vincent F. Yu), in *the 19th International Conference on Automation Science and Engineering (CASE)*, Auckland, New Zealand, 2023.
https://ieeexplore.ieee.org/document/10260380

17. "Neural Network based Heuristic Selection for Selection Hyper-heuristics" (joint work with Jingwei Li and Yuanjun Lin), in *the 22th IEEE Congress on Evolutionary Computation (CEC)*, Chicago, USA, July 2023.
https://ieeexplore.ieee.org/document/10254068

18. "Algorithm Selection for Large-Scale Multi-objective Optimization" (joint work with Xinye Cai), in *the International Conference in Optimization and Learning (OLA)*, Malaga, Spain. CCIS, Springer, 2023.
https://link.springer.com/chapter/10.1007/978-3-031-34020-8_3

19. "Cross-domain Algorithm Selection: Algorithm Selection across Selection Hyper-heuristics", in *the IEEE Symposium Series on Computational Intelligence (SSCI)*, Singapore, 2022.
https://ieeexplore.ieee.org/document/10022078/

20. "Algorithm Selection across Algorithm Configurators: A Case Study on Multi-objective Optimization", in *the IEEE Symposium Series on Computational Intelligence (SSCI)*, Singapore, 2022.
https://ieeexplore.ieee.org/document/10022231/

21. "Automated Portfolio Generation for Selection Hyper-heuristics: an Application to Protein Structure Prediction on 2D HP Model", in Proceedings of *the 19th IEEE Conference on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB)*, Ottawa, ON, Canada. IEEE, 2022.
https://ieeexplore.ieee.org/document/9863039/

22. "Algorithm Selection for the Team Orienteering Problem" (joint work with Aldy Gunawan and Pieter Vansteenwegen), in Proceedings of *the 22nd European Conference on Evolutionary Computation in Combinatorial Optimisation (EvoCOP)*, Madrid, Spain. LNCS 12931, Springer, 2022.
https://link.springer.com/chapter/10.1007/978-3-031-04148-8_3

23. "Selection-based Per-Instance Heuristic Generation for Protein Structure Prediction of 2D HP Model", in *the IEEE Symposium Series on Computational Intelligence (SSCI)*, Virtual, 2021.
https://ieeexplore.ieee.org/document/9660025

24. "Generalized Automated Energy Function Selection for Protein Structure Prediction on 2D and 3D HP Models", in *the IEEE Symposium Series on Computational Intelligence (SSCI)*, Virtual, 2021.
https://ieeexplore.ieee.org/document/9659895/

25. "Algorithm Selection on Adaptive Operator Selection: A Case Study on Genetic Algorithms", in *the 15th Learning and Intelligent Optimization Conference (LION)*, Athens, Greece (Virtual), 2021.

26. "Algorithm Selection for Protein Structure Prediction on 2D AB Off-lattice Model", in *the 15th Learning and Intelligent Optimization Conference (LION)*, Athens, Greece (Virtual) - *Presentation Only*, 2021.

27. "Selection-based Per-Instance Heuristic Generation for Protein Structure Prediction of 2D HP Model", in *the 5th International Conference on Machine Learning, Optimization, and Data Science (LOD)*, Grasmere, Lake District, UK, *under review*.

28. "Generalized Automated Energy Function Selection for Protein Structure Prediction on 2D and 3D HP Models", in *the 5th International Conference on Machine Learning, Optimization, and Data Science (LOD)*, Grasmere, Lake District, UK, *under review*.

29. "Benchmark Set Reduction for Cheap Empirical Algorithmic Studies", in *the 20th IEEE Congress on Evolutionary Computation (CEC)*, Kraków, Poland (Virtual), June-July 2021.
https://ieeexplore.ieee.org/document/9505012/

30. "Algorithm Selection across Selection Hyper-heuristics", in the *DSO @ IJCAI 2020 workshop at the 29th International Joint Conference on Artificial Intelligence (IJCAI) and the 17th Pacific Rim International Conference on Artificial Intelligence (PRICAI)*, Yokohama, Japan (Virtual), Jan. 2021.
https://sites.google.com/view/ijcai-2020-dso-workshop/

31. "Active Matrix Completion for Algorithm Selection", in *the 5th International Conference on Machine Learning, Optimization, and Data Science (LOD), LNCS 11943*, Siena-Tuscany, Italy, Sept. 2019 / 2020.
https://link.springer.com/chapter/10.1007/978-3-030-37599-7_27

32. "Matrix Factorization based Benchmark Set Analysis: A Case Study on HyFlex", in *the 11th International Conference on Simulated Evolution and Learning (SEAL), LNCS 10593*, Shenzhen, China, Nov. 2017.
https://link.springer.com/chapter/10.1007/978-3-319-68759-9_16

33. "Simulated Annealing with an Improvement Heuristic for Ready-mix Concrete Delivery" (joint work with Muhammad Sulaman and Xinye Cai), in *the 11th International Conference on Simulated Evolution and Learning (SEAL), LNCS 10593*, Shenzhen, China, Nov. 2017.
https://link.springer.com/chapter/10.1007/978-3-319-68759-9_4

34. "Greedy based Pareto Local Search for Bi-objective Robust Airport Gate Assignment Problem" (joint work with Wenxue Sun, Xinye Cai, Chao Xia, Muhammad Sulaman and Zhun Fan), in *the 11th International Conference on Simulated Evolution and Learning (SEAL), LNCS 10593*, Shenzhen, China, Nov. 2017.
`https://link.springer.com/chapter/10.1007/978-3-319-68759-9_56`

35. "ADVISER$^+$: Toward a Usable Web-based Algorithm Portfolio Deviser" (joint work with Hoong Chuin Lau, Li Xiang and Jiang Lingxiao), in *the 12th Metaheuristics International Conference (MIC)*, Barcelona, Spain, July 2017.

36. "Data Sampling through Collaborative Filtering for Algorithm Selection", in *the 16th IEEE Congress on Evolutionary Computation (CEC)*, Donostia, Spain, June 2017.
`https://ieeexplore.ieee.org/document/7969608`

37. "Matrix Factorization based Benchmark Set Analysis: A Case Study on HyFlex", in *the Workshop on Data Science meets Optimisation (DSO)*, Donostia, Spain, June 2017.

38. "Ensemble Move Acceptance in Selection Hyper-heuristics" (joint work with Ahmed Kheiri and Ender Ozcan), in *the 31st International Symposium on Computer and Information Sciences (ISCIS), CCIS 659*, Krakow, Poland, Oct. 2016.
`https://link.springer.com/chapter/10.1007/978-3-319-47217-1_3`

39. "Designing and Comparing Multiple Portfolios of Parameter Configurations for Online Algorithm Selection" (joint work with Aldy Gunawan and Hoong Chuin Lau), in *the 10th Learning and Intelligent Optimization Conference (LION), LNCS 10079*, Napoli, Italy, May-June 2016.
`https://link.springer.com/chapter/10.1007/978-3-319-50349-3_7`

40. "Designing a Portfolio of Parameter Configurations for Online Algorithm Selection" (joint work with Aldy Gunawan and Hoong Chuin Lau), in *the 29th AAAI Conference on Artificial Intelligence: Workshop on Algorithm Configuration*, Austin/Texas, USA, Jan. 2015.

41. "OSCAR: Online Selection of Algorithm Portfolios with Case Study on Memetic Algorithms" (joint work with Daniel Handoko and Hoong Chuin Lau), in *Proceedings of the 9th Learning and Intelligent Optimization Conference (LION), LNCS 8994*, Lille, France, Jan. 2015, **Best Paper Runner-up**.

42. "ADVISER: A Web-based Algorithm Portfolio Deviser" (joint work with Daniel Handoko and Hoong Chuin Lau), in *Proceedings of the 9th Learning and Intelligent Optimization Conference (LION), LNCS 8994*, Lille, France, Jan. 2015.

43. "A Recommender System for Process Discovery" (joint work with Joel Ribeiro, Josep Carmona and Michele Sebag), in *Proceedings of the 12th International Conference on Business Process Management (BPM), LNCS 8659*, Eindhoven, Netherlands, Sep. 2014.

44. "Diversity-Oriented Bi-Objective Hyper-heuristics for Patrol Scheduling" (joint work with Hoong Chuin Lau), in *Proceedings of the 10th International Conference on the Practice and Theory of Automated Timetabling (PATAT)*, York, UK, Aug. 2014.

45. "Building Algorithm Portfolios for Memetic Algorithms" (joint work with Daniel Handoko and Hoong Chuin Lau), in *Proceedings of the 16th Annual Conference on Genetic and Evolutionary Computation Companion (GECCO)*, Vancouver/British Columbia, Canada, Jul. 2014.

46. "A Dynamic Bundle Recommender System for Leisure Parks" (joint work with Shih-Fen Cheng, Hoong Chuin Lau and Pradeep Varakantham), in *the Production and Operations Management Society International Conference (POMS)*, Singapore, Jul. 2014.

47. "Group Decision Making in Selection Hyper-heuristics" (joint work with Ender Özcan and Ahmed Kheiri), in *Proceedings of the 13th Annual Workshop on Computational Intelligence*, Surrey, UK, Sep. 2013.

48. "The Effect of the Set of Low-level Heuristics on the Performance of Selection Hyper-heuristics" (joint work with Katja Verbeeck, Patrick De Causmaecker and Greet Vanden Berghe), in *Proceedings of the 12th International Conference on Parallel Problem Solving From Nature (PPSN), LNCS 7492*, Taormina, Italy, Sep. 2012.

49. "An Intelligent Hyper-heuristic Framework for CHeSC 2011" (joint work with Katja Verbeeck, Patrick De Causmaecker and Greet Vanden Berghe), in *Proceedings of the 6th Learning and Intelligent Optimization Conference (LION), LNCS 7219*, Paris, France, Jan. 2012, **CHeSC 2011 Winner**.

50. "A New Hyper-heuristic Implementation in HyFlex: a Study on Generality" (joint work with Patrick De Causmaecker, Greet Vanden Berghe and Katja Verbeeck), in *Proceedings of the 23rd Benelux Conference on Artificial Intelligence (BNAIC)*, Gent, Belgium, Nov. 2011.

51. "Security Personnel Routing and Rostering: a Hyper-heuristic Approach" (joint work with Pieter Smet, Greet Vanden Berghe and Katja Verbeeck), in *Proceedings of the 3rd International Conference on Applied Operational Research (ICAOR), LNMS 3*, Istanbul, Türkiye, Aug. 2011.

52. "A New Hyper-heuristic Implementation in HyFlex: a Study on Generality" (joint work with Katja Verbeeck, Patrick De Causmaecker and Greet Vanden Berghe), in *Proceedings of the 5th Multidisciplinary International Scheduling Conference: Theory & Applications (MISTA)*, Phoenix/Arizona, USA, Aug. 2011.

53. "A Selection Hyper-heuristic for Scheduling Deliveries of Ready-Mixed Concrete" (joint work with Wim Vancroonenburg, Katja Verbeeck and Greet Vanden Berghe), in *Proceedings of the 9th Metaheuristics International Conference (MIC)*, Udine, Italy, Jul. 2011.

54. "A Hyper-heuristic Combined with a Greedy Shuffle Approach to the Nurse Rostering Competition" (joint work with Burak Bilgin, Peter Demeester, Wim Vancroonenburg, Greet Vanden Berghe and Tony Wauters), in *the 8th International Conference on the Practice and Theory of Automated Timetabling (PATAT)*, Belfast, Northern Ireland, Aug. 2010, **INRC 2010 Finalist**.

55. "A Hyper-heuristic Approach for Assigning Patients to Hospital Rooms" (joint work with Wim Vancroonenburg, Burak Bilgin, Peter Demeester and Greet Vanden Berghe), in *Proceedings of the 8th International Conference on the Practice and Theory of Automated Timetabling (PATAT)*, Belfast, Northern Ireland, Aug. 2010.

56. "Hyper-heuristics with a Dynamic Heuristic Set for the Home Care Scheduling Problem" (joint work with Katja Verbeeck, Patrick De Causmaecker and Greet Vanden Berghe), in *Proceedings of the IEEE Congress on Evolutionary Computation (CEC)*, Barcelona, Spain, Jul. 2010.

57. "A Hyper-heuristic Approach to the Home Care Scheduling Problem" (joint work with Patrick De Causmaecker, Katja Verbeeck and Greet Vanden Berghe), in *Proceedings of the 14th Belgian-French-German Conference on Optimization (BFG)*, Leuven, Belgium, Sep. 2009.

58. "A Hyper-heuristic Approach to the Patient Admission Scheduling Problem" (joint work with Burak Bilgin, Peter Demeester, Katja Verbeeck, Patrick De Causmaecker and Greet Vanden Berghe), in *Proceedings of the 35th International Conference of Operational Research Applied to Health Services (ORAHS)*, Leuven, Belgium, Jul. 2009.

59. "A New Learning Hyper-heuristic for the Traveling Tournament Problem" (joint work with Tony Wauters, Katja Verbeeck and Greet Vanden Berghe), in *Proceedings of the 8th Metaheuristics International Conference (MIC)*, Hamburg, Germany, Jul. 2009.

60. "A Self-organising Hyper-heuristic Framework" (joint work with Ender Özcan and Edmund Burke), in *Proceedings of the 4th Multidisciplinary International Scheduling Conference: Theory & Applications (MISTA)*, Dublin, Ireland, Aug. 2009.

61. "A Study of Simulated Annealing Hyperheuristics" (joint work with Edmund Burke, Graham Kendall and Ender Özcan), in *Proceedings of the 7th International Conference on the Practice and Theory of Automated Timetabling (PATAT)*, Montreal, Canada, Aug. 2008.

62. "Learning Heuristic Selection in Hyper-heuristics for Examination Timetabling" (joint work with Edmund Burke, Gabriela Ochoa and Ender Özcan), in *Proceedings of the 7th International Conference on the Practice and Theory of Automated Timetabling (PATAT)*, Montreal, Canada, Aug. 2008.

National Conference / Workshop Papers

63. "Design Principles and Performance Analysis of a Selection Hyper-heuristic across Multiple Problem Domains" (joint work with Katja Verbeeck, Patrick De Causmaecker and Greet Vanden Berghe), in *Proceedings of the 26th Belgian Conference on Operations Research (ORBEL)*, Brussels, Belgium, Feb. 2012.

64. "An Adaptive Selection Hyper-heuristic for CHeSC 2011" (joint work with Patrick De Causmaecker, Greet Vanden Berghe and Katja Verbeeck), in *Proceedings of the OR53 Annual Conference*, Nottingham, UK, Sep. 2011.

65. "Design of a Generic Selection Hyper-heuristic" (joint work with Katja Verbeeck, Greet Vanden Berghe and Patrick De Causmaecker), in *Proceedings of the 25th Belgian Conference on Operations Research (ORBEL)*, Gent, Belgium, Feb. 2011.

66. "An Introduction to New Application Domains for the Home Care Scheduling Problem" (joint work with Pieter Smet and Greet Vanden Berghe), in *Proceedings of the 25th Belgian Conference on Operations Research (ORBEL)*, Gent, Belgium, Feb. 2011.

67. "A Hyper-heuristic Approach for the Ready-Mixed Concrete Delivery Problem" (joint work with Wim Vancroonenburg and Greet Vanden Berghe), in *Proceedings of the 25th Belgian Conference on Operations Research (ORBEL)*, Gent, Belgium, Feb. 2011.

68. "Hyper-heuristics Learning a Varying Set of Low-level Heuristics" (joint work with Katja Verbeeck, Greet Vanden Berghe and Patrick De Causmaecker), in *Proceedings of the 24th Belgian Conference on Operations Research (ORBEL)*, Liege, Belgium, Jan. 2010.

69. "Hyper-heuristics: Raising the Level of Generality" (joint work with Patrick De Causmaecker, Katja Verbeeck and Greet Vanden Berghe), in *Proceedings of the 23rd Belgian Conference on Operations Research (ORBEL)*, Leuven, Belgium, Feb. 2009.

Technical Reports

70. "Algorithm Selection as a Collaborative Filtering Problem" (joint work with Michele Sebag), INRIA, Tech. Report, 2013.

71. "A New Hyper-heuristic Approach to the Ready-Mixed Concrete Delivery Problem" (joint work with Wim Vancroonenburg, Katja Verbeeck and Greet Vanden Berghe), KAHO Sint-Lieven, Tech. Report, 2011.

72. "A Hyper-heuristic Approach to the Home Care Scheduling Problem" (joint work with Katja Verbeeck, Greet Vanden Berghe and Patrick De Causmaecker), KAHO Sint-Lieven, Tech. Report, 2009.

Other Publications

73. "Intelligent Hyperheuristics: A Tool for Solving Generic Optimisation Problems", Ph.D. Dissertation, Department of Computer Science, KU Leuven, 2012, **ERCIM Cor Baayen Award 2013 Finalist**.

74. "Group Decision Making for Move Acceptance in Hyperheuristics", M.Sc. Thesis, Department of Computer Engineering, Yeditepe University, 2008.

75. "A New Hyperheuristic, IDWalk based Hyperheuristic Strategy", B.Sc. Graduation Project Report, Department of Computer Engineering, Yeditepe University, 2007.

Journal / Book / Proceedings Editor

2021	Turkish Journal of Electrical Engineering & Computer Sciences, TUBITAK
2019	Proceedings of the 8th International Conference on Computer Engineering and Networks (CENet 2018), Shanghai, China – *Advances in Intelligent Systems and Computing*, Springer
2019	Proceedings of the 6th International Conference on Information Science and Cloud Computing (ISCC 2018), Guangzhou, China – *Advances in Intelligent Systems and Computing*, Springer

Citation Report

Google scholar[9]: # citations = 1255, h-Index = 18

Research Grants

10/2020 - 09/2022	Principal Investigator[10], *aTLAS: Transfer Learning for Algorithm Selection* — Istinye University Internal Research Grant (800K TRY = ∼100K USD)
09/2020 - 08/2022	Principal Investigator[11], *Deep Learning based Diabetic Retinopathy Stage Diagnosis, Progression and Risk Estimation* — Istinye University Internal Research Grant (1.5M TL/TRY = ∼200K USD)
09/2020 - 12/2021	Researcher, *Financial Pattern Recognition with Deep Learning based Image Processing* — Istinye University Internal Research Grant (50K TL/TRY = ∼7K USD)
09/2020 - 12/2021	Researcher, *Sustainable Aggregate Production Planning using Multi-Criteria Decision-Making, Mathematical Modeling and Dynamic Programming* — Joint Grant by Scientific and Technological Research Council of Türkiye & Iran Ministry of Science, Technology and Innovation (MSRT) (TUBITAK 2535) (165K TL/TRY = ∼25K USD)
05/2019 - 05/2021	Principal Investigator, *Automated Algorithm Design for Ab Initio Protein Structure Prediction* — Reintegration Grant by Scientific and Technological Research Council of Türkiye (TUBITAK 2232) (170K TRY = ∼30K USD)
04/2016 - 12/2017	Principal Investigator, *Algorithm Selection for Multiobjective Optimization* — Nanjing University of Aeronautics and Astronautics Research Fund (80K RMB = ∼13K USD)

Industrial Research Projects

2013 - 2015	Researcher, *Dynamic Learning and Optimization of User Experience in Travel and Tourism.* Funded by National Research Foundation (NRF) of Singapore @ Singapore Management U.
2009 - 2011	Researcher, *IWT 090549 - Workforce Routing and Rostering* (A commercial optimization system called MOUNT-Q was developed – `http://www.mountq.be`). Funded by Agency for Innovation by Science and Technology (IWT) of Belgium @ KU Leuven

Project / Student Supervision

Jan. 2020– ∼	Oguzhan Tas, Machine Learning for Intrusion Detection, *PhD Thesis* in Computer Engineering, Sabahattin Zaim University, Department of Computer Engineering, Türkiye
Sept. 2018– ∼	Yudistira Ashadi, Multi-objective Compiler Optimization, *Master Thesis* in Computer Science, Nanjing U. Aeronautics and Astronautics, College of Computer Science and Technology, China (Joint Supervision: Xinye Cai)
Sept. 2017–Dec. 2019	Cheng Jingsong, Algorithm Selection through Deep Learning, *Master Thesis* in Computer Science, Nanjing U. Aeronautics and Astronautics, College of Computer Science and Technology, China
Jan. 2018–June 2018	Yudistira Ashadi, Selection Hyper-heuristics for the Next Release Problem, *Bachelor Thesis* in Software Engineering & Management, Nanjing U. Aeronautics and Astronautics, College of Computer Science and Technology, China
Sept. 2016–Dec. 2017	Muhammad Sulaman, Simulated Annealing with a Time-slot Heuristic for Ready-mix Concrete Delivery, *Master Thesis* @ Nanjing U. Aeronautics and Astronautics, College of Computer Science and Technology, China (Joint Supervision: Xinye Cai)
Aug. 2015–Dec. 2015	Xiang Li, Algorithm Portfolio Generation via Configuration, *Undergraduate Research Project*, Singapore Management U., School of Information Systems, Singapore
Mar. 2015–Aug. 2015	Enrique Urra, Parameter Configuration for Hyper-heuristics, *Internship Project*, U. Freiburg, Department of Computer Science, Germany
May 2014–July 2014	Hoang Thanh Tung, Online Crossover Selection in Memetic Algorithms, *Internship Project*, Singapore Management U., School of Information Systems, Singapore

Conference / Workshop Committees / chairs

[9] `https://scholar.google.com/citations?user=MuJmTFUAAAAJ`
[10] the project is closed due to leaving the university
[11] the project is closed due to leaving the university

1. Program committee, 14th International Conference on Evolutionary Computation Theory and Applications (ECTA), Valletta, Malta, Oct. 2022
2. Program committee, 17th Parallel Problem Solving from Nature (PPSN), Dortmund, Germany, Sept. 2022
3. Program committee, 36th AAAI Conference on Artificial Intelligence (AAAI), Vancouer, Canada, Feb.-Mar. 2022
4. Program committee, 7th International Conference on Machine Learning, Optimization, and Data Science (LOD), Grasmere, UK, Oct. 2021
5. Program committee, 13th International Conference on Evolutionary Computation Theory and Applications (ECTA), Valletta, Malta, Oct. 2021
6. Program committee, 22nd Annual Conference on Genetic and Evolutionary Computation (GECCO), General Evolutionary Computation and Hybrids, Lille, France, July 2021
7. Program committee, 20th IEEE Congress on Evolutionary Computation (CEC) – RepL4Opt: Representation Learning meets Meta-heuristic Optimization, Kraków, Poland, June - July 2021
8. Program committee, 35th AAAI Conference on Artificial Intelligence (AAAI), Virtual, Feb. 2021
9. Program committee, 12th International Conference on Evolutionary Computation Theory and Applications (ECTA), Budapest, Hungary, Nov. 2020
10. Program committee, 16th Parallel Problem Solving from Nature (PPSN), Leiden, Netherlands, Sept. 2020
11. Program committee, 21st Annual Conference on Genetic and Evolutionary Computation (GECCO), General Evolutionary Computation and Hybrids, Cancun, Mexico, July 2020
12. Program committee, 6th International Conference on Machine Learning, Optimization, and Data Science (LOD), Siena-Tuscany, Italy, July 2020
13. Program committee, 2nd International Conference on Advances in Signal Processing and Artificial Intelligence (ASPAI), Berlin, Germany, Apr. 2020
14. Program committee, 34th AAAI Conference on Artificial Intelligence (AAAI), New York, USA, Feb. 2020
15. Program committee, IEEE Symposium on Evolutionary Scheduling and Combinatorial Optimisation (ESCO) under the IEEE Symposium Series on Computational Intelligence (SSCI), Xiamen, China, Dec. 2019
16. Program committee, 11th International Conference on Evolutionary Computation Theory and Applications (ECTA) / 11th International Joint Conference on Computational Intelligence (IJCCI), Vienna, Austria, Sept. 2019
17. Program committee, 20th Annual Conference on Genetic and Evolutionary Computation (GECCO), General Evolutionary Computation and Hybrids, Prague, Czech Republic, July 2019
18. Program committee, 1st International Conference on Advances in Signal Processing and Artificial Intelligence (ASPAI), Barcelona, Spain, Mar. 2019
19. Program committee, 33rd AAAI Conference on Artificial Intelligence (AAAI), Honolulu/Hawaii, USA, Jan.-Feb. 2019
20. Program chair, 6th International Conference on Information Science and Cloud Computing (ISCC), Guangzhuou, China, Dec. 2018
21. Program committee, 10th International Joint Conference on Computational Intelligence (IJCCI), Seville, Spain, Sept. 2018
22. Program committee, 12th International Conference on the Practice and Theory of Automated Timetabling (PATAT), Vienna, Austria, Aug. 2018
23. Program chair, 8th International Conference on Computer Engineering and NEtworks (CENet), Shanghai, China, Aug. 2018

24. Program committee, 19th Annual Conference on Genetic and Evolutionary Computation (GECCO), Kyoto, Japan , July 2018

25. Program committee, 9th International Joint Conference on Computational Intelligence (IJCCI), Funchal, Madeira - Portugal, Nov. 2017

26. Program committee, 19th Annual Conference on Genetic and Evolutionary Computation (GECCO), Evolutionary Combinatorial Optimization and Metaheuristics, Berlin, Germany, July 2017

27. Program chair, 7th International Conference on Computer Engineering and NEtworks (CENet), Shanghai, China, July 2017

28. Program committee, 3rd IEEE International Conference on Cybernetics (CYBCONF) - Special session on Deep Learning for Prediction and Estimation (DLPE), Exeter, UK, June 2017

29. Program committee, 25th International Joint Conference on Artificial Intelligence (IJCAI), New York, USA, Jul. 2016

30. Program committee, 18th Annual Conference on Genetic and Evolutionary Computation (GECCO), Search-Based Software Engineering and Self-* Search, Denver/Colorado, USA, July 2016

31. Program committee, 17th Annual Conference on Genetic and Evolutionary Computation (GECCO), Search-Based Software Engineering and Self-* Search, Madrid, Spain, July 2015

32. Program committee, 16th Annual Conference on Genetic and Evolutionary Computation (GECCO), Self-* Search, Vancouver/British Columbia, Canada, July 2014

33. Program committee, 15th Annual Conference on Genetic and Evolutionary Computation (GECCO), Self-* Search, Amsterdam, Netherlands, July 2013

34. Program committee, 14th Annual Conference on Genetic and Evolutionary Computation (GECCO), Self-* Search, Philadelphia/Pennsylvania, USA, July 2012

Conference / Workshop / Special session organizer

1. Stream on *Hyper-heuristics*, in the 30th European Conference on Operational Research (EURO), Dublin, Ireland, June 2019

2. Invited Session on *Automated Algorithm Design for Multi-objective Optimization Problems*, in the 25th International Conference on Multiple Criteria Decision Making (MCDM), Istanbul, Türkiye, June 2019

3. Stream on *Hyper-heuristics*, in the 29th European Conference on Operational Research (EURO), Valencia, Spain, July 2018

4. Special Session on *Automated Algorithm Design as Ensemble Techniques*, in the IEEE Symposium on Computational Intelligence and Ensemble Learning (CIEL) under the IEEE Symposium Series on Computational Intelligence (SSCI), Honolulu/Hawaii, USA, Nov. 2017

Reviewer

Journals: IEEE Transactions on Evolutionary Computation, Evolutionary Computation (MIT), IEEE Computational Intelligence Magazine, INFORMS Journal on Computing, Applied Soft Computing (Elsevier), Artificial Intelligence Review (Springer), European Journal of Operational Research (Elsevier), Expert Systems with Applications (Elsevier), Information Sciences (Elsevier), Computers & Operations Sciences (Elsevier), ACM Transactions on Evolutionary Learning and Optimization (ACM), Journal of Heuristics (Springer), Memetic Computing (Springer), Evolving Systems (Springer), Journal of Scheduling (Springer), Annals of Operations Research (Springer), Swarm and Evolutionary Computation (Elsevier), Journal of the Operational Research Society (Palgrave Macmillan), Soft Computing (Springer), International Transactions in Operational Research (Wiley), Frontiers of Information Technology & Electronic Engineering (Springer), Communications in Nonlinear Science and Numerical Simulation (Elsevier), Automation in Construction (Elsevier), International Journal of Metaheuristics (InderScience), International Journal of Innovative Computing and Applications (InderScience), International Journal of Bio-Inspired Computation (InderScience), Turkish Journal of Electrical Engineering & Computer Sciences (TUBITAK), Journal of Information Technology Research (IGI Global), IEEE Access (IEEE), Algorithms (MDPI), Applied Sciences (MDPI), Big Data and Cognitive Computing (MDPI), Bioengineering (MDPI), Electronics (MDPI), Life (MDPI), Computer Communication & Collaboration (BAP), Journal of Applied Operational Research (Tadbir)

Conferences: 24th Annual Conference on Genetic and Evolutionary Computation (GECCO 2023), 14th IEEE Symposium Series on Computational Intelligence (SSCI 2023), 15th International Conference on Evolutionary Computation Theory and Applications (ECTA 2023), 36th AAAI Conference on Artificial Intelligence (AAAI 2022), 23rd Annual Conference on Genetic and Evolutionary Computation (GECCO 2022), 13rd IEEE Symposium Series on Computational Intelligence (SSCI 2022), 17th Parallel Problem Solving from Nature (PPSN 2022), 21st IEEE Congress on Evolutionary Computation (CEC 2022), 14th International Conference on Evolutionary Computation Theory and Applications (ECTA 2022), 22nd Annual Conference on Genetic and Evolutionary Computation (GECCO 2021), 20th IEEE Congress on Evolutionary Computation (CEC 2021), 7th International Conference on Machine Learning, Optimization, and Data Science (LOD 2021), 13th International Conference on Evolutionary Computation Theory and Applications (ECTA 2021), 34rd AAAI Conference on Artificial Intelligence (AAAI 2020), 30th International Conference on Automated Planning and Scheduling (ICAPS 2020), 21st Annual Conference on Genetic and Evolutionary Computation (GECCO 2020), 6th International Conference on Machine Learning, Optimization, and Data Science (LOD 2020), 16th Parallel Problem Solving from Nature (PPSN 2020), 12th International Conference on Evolutionary Computation Theory and Applications (ECTA 2020), 33rd AAAI Conference on Artificial Intelligence (AAAI 2019), 20th Annual Conference on Genetic and Evolutionary Computation (GECCO 2019), IEEE Symposium on Evolutionary Scheduling and Combinatorial Optimisation (ESCO 2019) under the IEEE Symposium Series on Computational Intelligence (SSCI 2019), 18th IEEE Congress on Evolutionary Computation (CEC 2019), 11th International Conference on Evolutionary Computation Theory and Applications (ECTA 2019) / 11th International Joint Conference on Computational Intelligence (IJCCI 2019), 1st International Conference on Advances in Signal Processing and Artificial Intelligence (ASPAI 2019), 9th IEEE Symposium Series on Computational Intelligence (SSCI 2018), 10th International Joint Conference on Computational Intelligence (IJCCI 2018), 19th Annual Conference on Genetic and Evolutionary Computation (GECCO 2018), 17th IEEE Congress on Evolutionary Computation (CEC 2018), 12th International Conference on the Practice and Theory of Automated Timetabling (PATAT 2018), 2nd International Conference on Computer Science and Application Engineering (CSAE 2018), 4th International Conference on Fuzzy Systems and Data Mining (FSDM 2018), 8th IEEE Symposium Series on Computational Intelligence (SSCI 2017), 19th Annual Conference on Genetic and Evolutionary Computation (GECCO 2017), 16th IEEE Congress on Evolutionary Computation (CEC 2017), 9th International Joint Conference on Computational Intelligence (IJCCI 2017), 3rd IEEE International Conference on Cybernetics (CYBCONF) - Special session on Deep Learning for Prediction and Estimation (DLPE 2017), 25th International Joint Conference on Artificial Intelligence (IJCAI 2016), 18th Annual Conference on Genetic and Evolutionary Computation (GECCO 2016), 10th Learning and Intelligent Optimization Conference (LION 2016), 15th IEEE Congress on Evolutionary Computation (CEC 2016), 17th Annual Conference on Genetic and Evolutionary Computation (GECCO 2015), 28th Canadian Artificial Intelligence Conference (AI 2015), 16th Annual Conference on Genetic and Evolutionary Computation (GECCO 2014), 8th Learning and Intelligent Optimization Conference (LION 2014), 6th Multidisciplinary International Scheduling Conference: Theory & Applications (MISTA 2013), 15th Annual Conference on Genetic and Evolutionary Computation (GECCO 2013), 14th Annual Conference on Genetic and Evolutionary Computation (GECCO 2012)

Grant Evaluation: Scientific and Technological Research Council of Türkiye (TUBITAK) Technology and Innovation Support Programs (TEYDEB), TUBITAK International Cooperation Projects Research Support Group (UPAG)

Invited/∼ Talks[10]

Sept. 2023 "Machine Learning: What, How, and When", HackDuke @ DKU: Inspiring Innovation and Impact, China

Aug. 2023 "Automated Machine Learning: AutoML", International Conference on Images, Algorithms and Artificial Intelligence (ICIAAI 2023), Singapore / Virtual

July 2023 "The U.S.-China AI Race: Competition and Cooperation", Duke China-U.S. Summit 2023, China

Aug. 2022 "Automated Machine Learning: AutoML", International Conference on Machine Learning, Cloud Computing and Intelligent Mining (MLCCIM 2022), China

Mar. 2022 "Cross-domain Algorithm Selection", the 7th International Conference on Industrial Engineering and Operations Management (IEOM) - Global Supply Chain and Logistics (Global SCM 2022), Türkiye

Feb. 2022 "Reinforcement Learning: Basics and Applications", Duke Kunshan University – Southeast University Short Term Program, China

Nov. 2021 "Algorithm Selection: Offline + Online Techniques", International Conference on Robotics Automation and Intelligent Control (ICRAIC 2021), China

Oct. 2021 "Automated Machine Learning (AutoML)", Keynote Talk, the 11th International Conference on Computer Engineering and Networks (CENet 2021), China

Apr. 2021 "Algorithm Selection: Offline + Online Techniques", Duke Kunshan University, China

Mar. 2021 "Automated Machine Learning (AutoML)", Istinye University, Türkiye

Dec. 2020 "Artificial Intelligence in Medicine", Biomedical Engineering, Ankara University, Türkiye

May 2020 "Artificial Intelligence against COVID-19", Webinar – Qatar University, Qatar

Oct. 2019 "Artificial Intelligence in Medicine", Istinye University, Türkiye

Mar. 2018 "Algorithm Selection: Offline + Online Techniques", CODeS, Department of Computer Science, KU Leuven, Belgium

Dec. 2017 "Automated Algorithm Design in Cloud", Keynote Talk, the 5th International Conference on Information Science and Cloud Computing (ISCC 2017), China

Nov. 2017 "Algorithm Selection: Offline + Online Techniques", Tutorial, the 11th International Conference on Simulated Evolution and Learning (SEAL 2017), China

July 2017 "Algorithm Selection: Offline + Online Techniques", Keynote Talk, the 7th International Conference on Computer Engineering and Networks (CENet 2017), China

May 2017 "Automated Algorithm Design: Towards the Ultimate Algorithm Designer", ASAP, School of Computer Science, University of Nottingham, UK

Nov. 2016 "Automated Algorithm Design: Towards the Ultimate Algorithm Designer", Keynote Talk, the 6th International Conference on Computer Engineering and Networks (CENet 2016), China

June 2016 "Automated Algorithm Design: Towards the Ultimate Algorithm Designer", CODeS, Department of Computer Science, KU Leuven, Belgium

Sept. 2015 "Automated Algorithm Design: Offline and Online Techniques", College of Computer Science and Technology, Nanjing University of Aeronautics and Astronautics, China

Aug. 2015 "Intelligent Hyper-heuristics: A Tool for Solving Generic Optimisation Problems", United Technologies Research Center, Ireland

May 2015 "Automated Algorithm Design: Offline and Online Techniques", Department of Computer Engineering, Abdullah Gül University, Türkiye

Apr. 2015 "Automated Algorithm Design: Offline and Online Techniques", Department of Electrical and Electronics Engineering, Istanbul Medipol University, Türkiye

Nov. 2014 "Intelligent Hyper-heuristics: A Tool for Solving Generic Optimisation Problems", Department of Computer Science, KU Leuven, Belgium

Oct. 2014 "Algorithm Selection as a Collaborative Filtering Problem", ML4AAD, Department of Computer Science, University of Freiburg, Germany

[10] excluding conference/workshop paper talks

Jan. 2014	"Automated Algorithm Design: Offline and Online Techniques", College of Engineering, Antalya International University, Türkiye
Jan. 2014	"Automated Algorithm Design: Offline and Online Techniques", Department of Computer Engineering, Meliksah University, Türkiye
Jan. 2014	"Algorithm Selection as a Collaborative Filtering Problem", LARC, School of Information Systems, Singapore Management University, Singapore
Oct. 2013	"Algorithm Selection as a Collaborative Filtering Problem", DDIS, Department of Informatics, University of Zurich, Switzerland
Aug. 2013	"High-level Search: From Hyper-heuristics to Algorithm Selection", LARC, School of Information Systems, Singapore Management University, Singapore
June 2013	"Algorithm Selection as a Collaborative Filtering Problem", LARCA, Department of Software, Universitat Politécnica de Catalunya, Spain
June 2013	"Algorithm Selection as a Collaborative Filtering Problem", INRIA, LRI, Université Paris-Sud XI, France
May 2013	"Algorithm Selection as a Collaborative Filtering Problem", CODeS, Department of Computer Science, KU Leuven, Belgium
Nov. 2012	"High-level Search: From Hyper-heuristics to Algorithm Selection", INRIA, LRI, Université Paris-Sud XI, France
June 2012	"Intelligent Hyper-heuristics: A Tool for Solving Generic Optimisation Problems", Department of Computer Science, University College London, UK
May 2012	"Intelligent Hyper-heuristics: A Tool for Solving Generic Optimisation Problems", Department of Computing Science and Mathematics, University of Stirling, UK
Mar. 2012	"Intelligent Hyper-heuristics: A Tool for Solving Generic Optimisation Problems", CODeS, Department of Computer Science, KU Leuven, Belgium
Jan. 2012	"An Adaptive Selection Hyper-heuristic for CHeSC 2011", ASAP, School of Computer Science, University of Nottingham, UK
Oct. 2011	"An Adaptive Selection Hyper-heuristic for CHeSC 2011", CODeS, Department of Computer Science, KU Leuven, Belgium
Jan. 2011	"Intelligent Hyper-heuristics for Generality", KAHO Dag, KAHO Sint-Lieven, Belgium
Dec. 2009	"Free Lunches for Hyper-heuristics", Department of Computer Science, KU Leuven, Belgium
Sept. 2009	"Fitness Landscape Analysis in Hyper-heuristics", Department of Computer Science, KU Leuven, Belgium
Jan. 2009	"Hyper-heuristics", Interdisciplinary Research on Technology, Education & Communication (iTec) Seminar Series – KU Leuven, Belgium
Mar. 2008	"Group Decision Making in Hyper-heuristics", Department of Computer Engineering, Yeditepe University, Istanbul, Türkiye

Interests

Major Research Interests:	*Automated Algorithm Design / Automated Machine Learning (AutoML), Data Science* and *Operations Research* with the help of *Artificial Intelligence, Machine Learning, Reinforcement Learning, Evolutionary Algorithms, Computational Intelligence, Hyper-heuristics, Meta-heuristics, Algorithm Portfolios, Adaptive/Reactive/Autonomous Search, Meta-learning, Empirical Algorithmics, Design of Experiments, Recommender Systems (Collaborative Filtering), Boolean Satisfiability, Constraint Programming, Combinatorial Optimisation, Data Mining (Knowledge Discovery), Decision Support Systems* and *Automated Planning/Scheduling*
Future Research Interests:	*Bioinformatics, (Search based) Software Engineering, Autonomous / Evolutionary Robotics, Cyber Security, GPU Computing, Evolvable Hardware, Computational Sustainability, Supply Chain Management, Cognitive Science* and *Theoretical Computer Science*
Others:	*Psychology, History, Architecture, Ornithology, Computer Games (mostly FPS, Racing) and Photography*[11]

[11] `http://www.flickr.com/photos/51549378@N04/`

Awards & Honours

Academic Visit Support, COST STSM Grant by Cost Action CA15140 – UC Dublin, 2019 (unused)
Conference Grant, COST ITC Conference Grant by Cost Action CA15140, 2019
Conference Grant, TUBITAK 2224-A Support to Participate in International Scientific Activities, 2019
Research Fellowship, TUBITAK 2232 Reintegration Grant, 2018
Nominee, Thousand Young Talents Program of China, 2016
Best Paper Runner-up, 9th Learning and Intelligent Optimization Conference, 2015
Finalist, ERCIM Cor Baayen Award (for Young Researchers in CS and Applied Math), 2013
Postdoctoral Fellowship, ERCIM Alain Bensoussan Fellowship Programme, 2012–2013
Winner, Cross Domain Heuristic Search Challenge (CHeSC)[12], 2011
Finalist Team Member, International Nurse Rostering Competition (INRC)[13], 2010
Ph.D Research Fellowship, Department of Computer Science, KU Leuven, 2009–2012
Turkish National Ministry of Education Scholarship for PhD in Japan & USA, 2008 (unused)
M.Sc. Graduate Assistantship, Department of Computer Engineering, Yeditepe University, 2007–2008
B.Sc. Student Assistantship, Department of Computer Engineering, Yeditepe University, 2006–2007
B.Sc. Fellowship, Department of Computer Engineering, Yeditepe University, 2002–2007
High Honour, M.Sc. Degree in Computer Engineering, Yeditepe University, 2008
Honour, B.Sc. Degree in Computer Engineering, Yeditepe University, 2007
Full Education Scholarship, Med Educational Institute, 2001–2002
Full Education Scholarship, Kadro Educational Institute, 2001–2002 (declined)
Full Education Scholarship, Odak Educational Institute, 2000–2002

Computer Skills

Programming: *C/C++, Java, Python, Prolog, Assembly, Matlab, Bash Shell*
Computer Graphics: *VRML, QML, OpenSceneGraph*
Web Technologies: *XHTML (CSS), JScript, JSP, PHP*
Database Systems: *Oracle,* {*Ms/My/Postgre*}*SQL*
Operating Systems: *Linux, Windows*

Memberships

Member, IEEE Intelligent System Application Technical Committee (ISATC), IEEE CIS
Member, Task Force on Automated Algorithm Design, Configuration and Selection (AADCS), IEEE CIS
Member, Task Force on Hyper-heuristics, IEEE CIS
Member, Task Force on Evolutionary Scheduling and Combinatorial Optimisation (ESCO), IEEE CIS
Member, COnfiguration and SElection of ALgorithms (COSEAL) Group
Member, IEEE Computational Intelligence Society (CIS)
Member, Institute of Electrical and Electronics Engineers (IEEE)
Member, Society for Industrial and Applied Mathematics (SIAM)
Member, Marie Curie Alumni Association (MCAA)
Member, Institute of Mathematical Statistics (IMS)
Member, European Chapter on Metaheuristics (EU/ME)
Member, EURO Working Group on Combinatorial Optimization (ECCO)
Member, EURO Working Group on Operational Research Applied to Health Services (ORAHS)
Member, EURO Working Group on Automated Timetabling (WATT)
Member, Turkish Foundation for Combating Soil Erosion (TEMA)
Former Member, Belgian Operations Research Society (ORBEL)
Former Member, OR Society, UK (OR)
Former (Founder) Member, Environmental Club, Yeditepe University
Former Member, Engineering Club, Yeditepe University
Former Member, Computer Society, Yeditepe University

[12] `http://www.asap.cs.nott.ac.uk/external/chesc2011/`
[13] `http://www.kuleuven-kulak.be/nrpcompetition`

Personal

Born in November 1985, Türkiye
Speaks Turkish (*Native*) and English (*Fluent*)