

# Prof. KLAUS VERNER SCHMİDT

## Personal Information

**Office Phone:** [+90 031 221 0440](tel:+900312210440) Extension: 8

**Fax Phone:** [+90 0312 210 2304](tel:+9003122102304)

**Email:** [schmidt@metu.edu.tr](mailto:schmidt@metu.edu.tr)

**Web:** <https://avesis.metu.edu.tr/schmidt>

## International Researcher IDs

ScholarID: NM8nuCoAAAAJ

ORCID: 0000-0003-3840-2737

Publons / Web Of Science ResearcherID: O-2493-2013

ScopusID: 55464613900

Yoksis Researcher ID: 271229

## Education Information

Doctorate, Friedrich-Alexander-Universitaet Erlangen-Nürnberg, Engineering, Germany 2002 - 2005

Undergraduate, Friedrich-Alexander-Universitaet Erlangen-Nürnberg, Electrical, Electronics And Communication Engineering, Germany 1997 - 2002

Postgraduate, Friedrich-Alexander-Universitaet Erlangen-Nürnberg, Electrical, Electronics And Communication Engineering, Germany 1997 - 2002

## Dissertations

Doctorate, Hierarchical Control of Decentralized Discrete Event Systems-Theory and Application, Friedrich-Alexander-Universitaet Erlangen-Nürnberg, Engineering, 2018

Postgraduate, Entwurf von Zustandsrückführungen für lineare diskrete Systeme über GF(2) mit Hilfe der Polynommatrixmethode, Friedrich-Alexander-Universitaet Erlangen-Nürnberg, Electrical, Electronics And Communication Engineering, 2018

## Research Areas

Electrical and Electronics Engineering, Electronic, Engineering and Technology

## Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2019 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 2017 - Continues

## Courses

## Supervised Theses

- SCHMİDT K. V., Communication and coordination for urban intelligent transportation: Architecture and algorithms, Doctorate, M.ATAGOZIEV(Student), 2022
- SCHMİDT K. V., Linear parameter varying control for autonomous systems: Methods and application examples, Postgraduate, F.ÇALIŞ(Student), 2022
- SCHMİDT K. V., Cooperative adaptive cruise control with predicted vehicle information: Development and evaluation, Postgraduate, F.KILIÇ(Student), 2022
- SCHMİDT K. V., Clock synchronization and weak TDMA for CAN FD: Implementation and evaluation, Postgraduate, İ.ONUR(Student), 2022
- SCHMİDT K. V., Hierarchical and modular control of reconfigurable manufacturing systems, Postgraduate, Ö.ARSLAN(Student), 2022
- SCHMİDT K. V., Estimation of vehicle signals for autonomous driving applications, Postgraduate, H.TEMURTAŞ(Student), 2022
- SCHMİDT K. V., A general framework for the deterministic medium access on the controller area network, Doctorate, M.AKPINAR(Student), 2022
- SCHMİDT K. V., Transfer functions with positive impulse response: Feedback controller design and application to cooperative adaptive cruise control, Postgraduate, İ.TAYYİP(Student), 2021
- Schmidt K. V., SENSOR FUSION OF A CAMERA AND 2D LIDAR FOR LANE DETECTION AND TRACKING, Postgraduate, Y.YENİAYDIN(Student), 2019
- SCHMİDT Ş. E., SCHMİDT K. V., Controller area network with offset scheduling: Improved offset assignment algorithms and computation of response time distributions, Postgraduate, A.BATUR(Student), 2018
- SCHMİDT K. V., LANE KEEPING CONTROL FOR SELF-DRIVING VEHICLES, Postgraduate, K.SARAÇOĞLU(Student), 2018
- SCHMİDT K. V., SCHMİDT Ş. E., C3: Configurable CAN FD controller: Design, implementation and evaluation, Postgraduate, M.ERTUĞ(Student), 2018
- Schmidt K. V., Optimal control problems for safe and efficient lane changes of self-driving vehicles, Doctorate, A.HASEEB(Student), 2017
- SCHMİDT Ş. E., SCHMİDT K. V., Message scheduling for the static and dynamic segment of FlexRay : algorithms and applications, Postgraduate, Ö.Kızılay(Student), 2015
- SCHMİDT Ş. E., SCHMİDT K. V., Controller area network response time analysis and scheduling for advanced topics: offsets, FIFO queues and gateways / , Postgraduate, B.Alkan(Student), 2015
- SCHMİDT Ş. E., SCHMİDT K. V., A Frame packing method to improve the schedulability on CAN and CAN-FD / , Postgraduate, G.Urul(Student), 2015
- Schmidt K. V., Fault-tolerant supervisory control of discrete event systems: Methods and examples, Postgraduate, A.NUR(Student), 2015
- Schmidt K. V., Development of a DC-motor control laboratory experiment, Postgraduate, A.HASEEB(Student), 2012
- Schmidt K. V., Development of laboratory experiments for control and power systems: The water -tank experiment, Postgraduate, A.M.(Student), 2012
- Schmidt K. V., Modeling control and simulation of a drinking water treatment plant, Postgraduate, F.GHAZY(Student), 2012
- Schmidt K. V., Supervisory control for reconfigurable manufacturing systems: Structural changes and re-usability of controllers, Postgraduate, A.NOORULDEEN(Student), 2012

## Published journal articles indexed by SCI, SSCI, and AHCI

1. **Computation of tight bounds for the worst-case end-to-end delay on Avionics Full-Duplex Switched Ethernet**

Ayhan Kilinc Z., SCHMİDT Ş. E., SCHMİDT K. V.

Journal of Systems Architecture, vol.156, 2024 (SCI-Expanded)

- II. **Predictable Timestamping for the Controller Area Network: Evaluation and Effect on Clock Synchronization Accuracy**  
Akpınar M., SCHMİDT K. V.  
IEEE Transactions on Systems, Man, and Cybernetics: Systems, vol.54, no.3, pp.1926-1935, 2024 (SCI-Expanded)
- III. **Weak TDMA for the Deterministic Medium Access on the Controller Area Network**  
Akpınar M., SCHMİDT Ş. E., SCHMİDT K. V.  
IEEE Transactions on Intelligent Transportation Systems, vol.25, no.8, pp.8568-8577, 2024 (SCI-Expanded)
- IV. **Lane change scheduling for connected and autonomous vehicles**  
Atagoziev M., Güran Schmidt E., SCHMİDT K. V.  
TRANSPORTATION RESEARCH PART C-EMERGING TECHNOLOGIES, vol.147, 2023 (SCI-Expanded)
- V. **String Stability Under Actuator Saturation on Straight Level Roads: Sufficient Conditions and Optimal Trajectory Generation**  
Bingol H., Schmidt K. W.  
IEEE Transactions on Intelligent Transportation Systems, vol.23, no.12, pp.24588-24598, 2022 (SCI-Expanded)
- VI. **Highly Accurate Clock Synchronization With Drift Correction for the Controller Area Network**  
Akpınar M., Schmidt E. G., Schmidt K. W.  
IEEE TRANSACTIONS ON PARALLEL AND DISTRIBUTED SYSTEMS, vol.33, no.12, pp.4071-4082, 2022 (SCI-Expanded)
- VII. **A Data Envelopment Analysis Method for Finding Robust and Cost-Efficient Schedules in Multimode Projects**  
Schmidt K. V., Hazır Ö.  
IEEE Transactions On Engineering Management, vol.76, no.2, pp.414-429, 2020 (SCI-Expanded)
- VIII. **Voronoi Boundary Visibility for Efficient Path Planning**  
Al-Dahhan M. R. H., SCHMİDT K. V.  
IEEE ACCESS, vol.8, pp.134764-134781, 2020 (SCI-Expanded)
- IX. **Order-Preserving Languages for the Supervisory Control of Automated Manufacturing Systems**  
Nooruldeen A., SCHMİDT K. V.  
IEEE ACCESS, vol.8, pp.131901-131919, 2020 (SCI-Expanded)
- X. **Formulation and solution of an optimal control problem for industrial project control**  
Schmidt K. V., Hazır Ö.  
Annals of Operations Research, vol.280, pp.337-350, 2019 (SCI-Expanded)
- XI. **Outputs bounds for linear systems with repeated input signals: existence, computation and application to vehicle platooning**  
Saglam H. B., Schmidt K. W.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.26, no.1, pp.283-295, 2018 (SCI-Expanded)
- XII. **Feedforward Strategies for Cooperative Adaptive Cruise Control in Heterogeneous Vehicle Strings**  
Al-Jhayyish A. M. H., SCHMİDT K. V.  
IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, vol.19, no.1, pp.113-122, 2018 (SCI-Expanded)
- XIII. **Reconfigurability of behavioural specifications for manufacturing systems**  
SCHMİDT K. V.  
INTERNATIONAL JOURNAL OF CONTROL, vol.90, no.12, pp.2605-2617, 2017 (SCI-Expanded)
- XIV. **Modeling Distributed Real-Time Systems in TIOA and UPPAAL**  
Kartal Y. B., SCHMİDT Ş. E., SCHMİDT K. W.  
ACM TRANSACTIONS ON EMBEDDED COMPUTING SYSTEMS, vol.16, no.1, 2016 (SCI-Expanded)
- XV. **Controller area network with priority queues and FIFO queues: improved schedulability analysis and message set extension**  
SCHMİDT K. W., Alkan B., SCHMİDT Ş. E., Karani D. C., Karakaya U.

- INTERNATIONAL JOURNAL OF VEHICLE DESIGN, vol.71, pp.335-357, 2016 (SCI-Expanded)
- XVI. **State attraction under language specification for the reconfiguration of discrete event systems**  
Nooruldeen A., Schmidt K. V.  
IEEE Transactions on Automatic Control, vol.60, no.6, pp.1630-1634, 2015 (SCI-Expanded)
- XVII. **Computation of supervisors for reconfigurable machine tools**  
Schmidt K. V.  
Discrete Event Dynamic Systems: Theory and Applications, vol.25, pp.125-158, 2015 (SCI-Expanded)
- XVIII. **Optimal supervisory control of discrete event systems: Cyclicity and interleaving of tasks**  
Schmidt K. V.  
SIAM Journal on Control and Optimization, vol.53, no.3, pp.1425-1439, 2015 (SCI-Expanded)
- XIX. **A framework for state attraction of discrete event systems under partial observation**  
Schmidt K. V., Breindl C.  
Information Sciences, vol.281, pp.265-280, 2014 (SCI-Expanded)
- XX. **Robust Priority Assignments for Extending Existing Controller Area Network Applications**  
SCHMIDT K. V.  
IEEE TRANSACTIONS ON INDUSTRIAL INFORMATICS, vol.10, no.1, pp.578-585, 2014 (SCI-Expanded)
- XXI. **Verification of Modular Diagnosability With Local Specifications for Discrete-Event Systems**  
SCHMIDT K. V.  
IEEE TRANSACTIONS ON SYSTEMS MAN CYBERNETICS-SYSTEMS, vol.43, no.5, pp.1130-1140, 2013 (SCI-Expanded)
- XXII. **An integrated scheduling and control model for multi-mode projects**  
Hazır Ö., Schmidt K. V.  
Flexible Services and Manufacturing Journal, vol.25, pp.230-254, 2013 (SCI-Expanded)
- XXIII. **Efficient Abstractions for the Supervisory Control of Modular Discrete Event Systems**  
SCHMIDT K. V., Ribeiro Cury J. E.  
IEEE TRANSACTIONS ON AUTOMATIC CONTROL, vol.57, no.12, pp.3224-3229, 2012 (SCI-Expanded)
- XXIV. **Fuzzy Discrete Event Systems for Multiobjective Control: Framework and Application to Mobile Robot Navigation**  
SCHMIDT K. V., Boutalis Y.  
IEEE TRANSACTIONS ON FUZZY SYSTEMS, vol.20, no.5, pp.910-922, 2012 (SCI-Expanded)
- XXV. **Maximally Permissive Hierarchical Control of Decentralized Discrete Event Systems**  
SCHMIDT K. W., Breindl C.  
IEEE TRANSACTIONS ON AUTOMATIC CONTROL, vol.56, no.4, pp.723-737, 2011 (SCI-Expanded)
- XXVI. **Message Scheduling for the FlexRay Protocol: The Static Segment**  
Schmidt K., SCHMIDT Ş. E.  
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.58, no.5, pp.2170-2179, 2009 (SCI-Expanded)
- XXVII. **Message Scheduling for the FlexRay Protocol: The Dynamic Segment**  
SCHMIDT Ş. E., Schmidt K.  
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.58, no.5, pp.2160-2169, 2009 (SCI-Expanded)
- XXVIII. **Nonblocking Hierarchical Control of Decentralized Discrete Event Systems**  
SCHMIDT K. V., MOOR T., PERK S.  
IEEE TRANSACTIONS ON AUTOMATIC CONTROL, vol.53, no.10, pp.2252-2265, 2008 (SCI-Expanded)
- XXIX. **Systematic message schedule construction for time-triggered CAN**  
Schmidt K., Schmidt E. G.  
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.56, no.6, pp.3431-3441, 2007 (SCI-Expanded)
- XXX. **A finite field framework for modeling, analysis and control of finite state automata**  
Reger J., Schmidt K. V.  
Mathematical and Computer Modelling of Dynamical Systems, vol.10, pp.253-285, 2004 (SCI-Expanded)
- XXXI. **Modeling and analyzing finite state automata in the finite field  $F_2$**   
Reger J., Schmidt K. V.  
Mathematics and Computers in Simulation, vol.66, pp.193-206, 2004 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Safe and Efficient Path Planning for Omni-directional Robots using an Inflated Voronoi Boundary**  
ALDAHAN M. R. H., SCHMİDT K. V.  
Çankaya University Journal of Science and Engineering, vol.16, no.2, pp.46-49, 2019 (Peer-Reviewed Journal)
- II. **Order-preserving Models for the Supervisory Control of Flexible Manufacturing Systems**  
Nooruldeen a., SCHMİDT K. V.  
Çankaya University Journal of Science and Engineering, vol.16, no.2, pp.70-86, 2019 (Peer-Reviewed Journal)
- III. **Cooperative Adaptive Cruise Control for Vehicle Following During Lane Changes**  
Schmidt K. V.  
IFAC-PapersOnLine, vol.50, no.1, pp.12582-12587, 2017 (Scopus)
- IV. **The Controllability Prefix for Supervisory Control under Partial Observation with an Application to Fault-Tolerant Control**  
Moor T., Schmidt K. V.  
IFAC-PapersOnLine, vol.50, no.1, pp.13642-13647, 2017 (Scopus)
- V. **Abstraction-based control for not necessarily closed behaviours**  
Moor T., Schmidt K. V., Wittmann T.  
IFAC Proceedings Volumes (IFAC-PapersOnline), vol.44, pp.6988-6993, 2011 (Scopus)
- VI. **An experimental study of the FlexRay dynamic segment**  
Schmidt K. V., Schmidt E. G., Demirci A., Yürüklü E., Karakaya U.  
IFAC Proceedings Volumes (IFAC-PapersOnline), vol.43, no.7, pp.413-418, 2010 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Deterministic RG-Trees via Voronoi Diagrams Voronoi Diyagramları ile Deterministik RG-Trees**  
GÖLBOL F., SCHMİDT K. V.  
32nd IEEE Conference on Signal Processing and Communications Applications, SIU 2024, Mersin, Turkey, 15 - 18 May 2024
- II. **Development of a Blade Lifting Control Assist System for a Motor Grader**  
Öztürk E. C. Ö., Akpınarlı U., Varol İ., ÜNLÜSOY Y. S., SCHMİDT K. V.  
40th International Symposium on Automation and Robotics in Construction, ISARC 2023, Chennai, India, 5 - 07 July 2023, pp.156-163
- III. **Anomaly Detection in In-Vehicle Networks with Graph Neural Networks Çizge Sinir Ağları ile Araç İçi Ağlarda Anomali Tespiti**  
Özdemir Ö., Karagöz P., Schmidt K. V.  
31st IEEE Conference on Signal Processing and Communications Applications, SIU 2023, İstanbul, Turkey, 5 - 08 July 2023
- IV. **Clock Synchronization for the Controller Area Network using Bit Timing Information CAN Ağları için Bit Zamanlaması Bilgisine Dayalı Saat Senkronizasyonu**  
Arkadas D. E., Akpınar M., SCHMİDT Ş. E., SCHMİDT K. V.  
30th Signal Processing and Communications Applications Conference, SIU 2022, Safranbolu, Turkey, 15 - 18 May 2022
- V. **Telegram Scheduling for the Multifunction Vehicle Bus (MVB): Algorithms and Evaluation**  
Çağlar Güldiken M., SCHMİDT Ş. E., SCHMİDT K. V.  
2020 IEEE Symposium on Computers and Communications, ISCC 2020, Rennes, France, 7 - 10 July 2020, vol.2020-July
- VI. **Sensor Fusion of a Camera and 2D LIDAR for Lane Detection**  
Yeniaydın Y., Schmidt K. V.  
Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Sivas, Turkey, 24 - 26 April 2019, pp.1-4
- VII. **Improved clock synchronization algorithms for the Controller Area Network (CAN)**

Akpinar M., SCHMİDT K. V., Schmidt E. G.

28th International Conference on Computer Communications and Networks (ICCCN), Valencia, Spain, 29 July - 01 August 2019

- VIII. **ACLOUD-MAN - Power Efficient Resource Allocation for Heterogeneous Clouds**  
Ekici N. U., SCHMİDT K. V., Yazar A., Schmidt E. G.  
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Turkey, 24 - 26 April 2019
- IX. **Resource Allocation for Minimized Power Consumption in Hardware Accelerated Clouds**  
Ekici N. U., SCHMİDT K. V., Yazar A., Schmidt E. G.  
28th International Conference on Computer Communications and Networks (ICCCN), Valencia, Spain, 29 July - 01 August 2019
- X. **Robust Lane Recognition Based on Arc Splines**  
Yeniaydın Y., SCHMİDT K. V.  
International Conference & Exhibition on Digital Transformation & Smart Systems, Ankara, Turkey, 24 - 26 October 2018, vol.1, pp.1-4
- XI. **Computation of Response Time Distributions for Messages on the Controller Area Network**  
Batur A., SCHMİDT Ş. E., SCHMİDT K. V.  
2018 IEEE 13th International Symposium on Industrial Embedded Systems (SIES), Graz, Austria, 6 - 08 June 2018
- XII. **Evaluation of response time distributions for controller area network messages**  
Batur A., SCHMİDT Ş. E., SCHMİDT K. V.  
2018 26th Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- XIII. **A lane keeping system with a weighted preview measurement**  
Saraçoğlu K., Üleş B., SCHMİDT K. V.  
2018 26th Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- XIV. **A lane detection algorithm based on reliable lane markings**  
Yeniaydın Y., Schmidt K. V.  
26th IEEE Signal Processing and Communications Applications Conference, SIU 2018, İzmir, Turkey, 2 - 05 May 2018, pp.1-4
- XV. **C3: Configurable CAN FD controller: Architecture, design and hardware implementation**  
Afşin M. E., Schmidt K. V., Schmidt E. G.  
12th IEEE International Symposium on Industrial Embedded Systems, SIES 2017, Toulouse, France, 14 - 16 June 2017
- XVI. **Improved load distribution for controller area network**  
Batur A., SCHMİDT Ş. E., SCHMİDT K. V.  
2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- XVII. **A fast and optimal static segment scheduling method for FlexRay v3.0**  
ÇAKMAK C., SCHMİDT Ş. E., SCHMİDT K. V.  
2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- XVIII. **A Configurable CAN FD controller: Architecture and implementation**  
Afşin M. E., SCHMİDT K. V., SCHMİDT Ş. E.  
2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- XIX. **A New Multi-Agent Decision Making Structure and Application to Model-Based Fault Diagnosis Problem**  
LEBLEBİCİOĞLU M. K., Zengin Y., Schmidt K. V.  
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- XX. **Lane Change Scheduling for Autonomous Vehicles**  
Atagoziyev M., SCHMİDT K. W., SCHMİDT Ş. E.  
14th IFAC Symposium on Control in Transportation Systems (CTS), İstanbul, Turkey, 18 - 20 May 2016, vol.49, pp.61-66

- XXI. **Discrete event supervisor design and application for manufacturing systems with arbitrary faults and repairs**  
Acar A. N., Schmidt K. V.  
11th IEEE International Conference on Automation Science and Engineering, CASE 2015, Gothenburg, Sweden, 24 - 28 August 2015, pp.825-830
- XXII. **Fault-tolerant control of discrete-event systems with lower-bound specifications**  
Moor T., Schmidt K. V.  
5th IFAC International Workshop on Dependable Control of Discrete Systems, DCDS 2015, Cancun, Mexico, 27 - 29 May 2015, vol.28, pp.161-166
- XXIII. **Computation of supervisors for fault-recovery and repair for discrete event systems**  
Sülek A. N., Schmidt K. V.  
12th IFAC/IEEE Workshop on Discrete Event Systems, WODES 2104, Cachan, France, 14 - 16 May 2014, vol.9, pp.428-433
- XXIV. **An optimization model to coordinate scheduling and controlling in projects: Case with instantaneous control constraints**  
Hazir Ö., Schmidt K. V., Eryilmaz U.  
1st International Conference on Engineering and Applied Sciences Optimization, OPT-i 2014, Kos Island, Greece, 4 - 06 June 2014, pp.2095-2110
- XXV. **Abstraction-based supervisory control for recon-gurable manufacturing systems ?**  
Khalid H. M., Kirik M. S., Schmidt K. V.  
4th IFAC Workshop on Dependable Control of Discrete Systems, DCDS 2013, York, United Kingdom, 4 - 06 September 2013, vol.4, pp.157-162
- XXVI. **Computation of fault-tolerant supervisors for discrete event systems ?**  
Sülek A. N., Schmidt K. V.  
4th IFAC Workshop on Dependable Control of Discrete Systems, DCDS 2013, York, United Kingdom, 4 - 06 September 2013, vol.4, pp.115-120
- XXVII. **Optimal configuration changes for reconfigurable manufacturing systems**  
Schmidt K. V.  
52nd IEEE Conference on Decision and Control, CDC 2013, Florence, Italy, 10 - 13 December 2013, pp.7621-7626
- XXVIII. **Fuzzy Hybrid Systems modeling with application in decision making and control**  
Boutalis Y., Moor T., Schmidt K. V.  
2012 6th IEEE International Conference Intelligent Systems, IS 2012, Sofija, Bulgaria, 6 - 08 September 2012, pp.290-296
- XXIX. **Computation of supervisors for reconfigurable machine tools**  
Schmidt K. V.  
11th International Workshop on Discrete Event Systems, WODES 2012, Guadalajara, Mexico, 3 - 05 October 2012, vol.45, pp.227-232
- XXX. **Hierarchical control with partial observations: Sufficient conditions**  
Boutin O., Komenda J., Masopust T., Schmidt K. V., Van Schuppen J. H.  
2011 50th IEEE Conference on Decision and Control and European Control Conference, CDC-ECC 2011, Orlando, FL, United States Of America, 12 - 15 December 2011, pp.1817-1822
- XXXI. **Computation of projections for the abstraction-based diagnosability verification**  
Schmidt K. V.  
10th International Workshop on Discrete Event Systems, WODES 2010, Berlin, Germany, 30 August - 01 September 2010, vol.10, pp.199-204
- XXXII. **Applied supervisory control for a flexible manufacturing system**  
Moor T., Schmidt K. V., Perk S.  
10th International Workshop on Discrete Event Systems, WODES 2010, Berlin, Germany, 30 August - 01 September 2010, vol.10, pp.253-258
- XXXIII. **Hierarchical multitasking control of discrete event systems: Computation of projections and maximal permissiveness**

- Schmidt K. V., De Queiroz M. H., Cury J. E.  
10th International Workshop on Discrete Event Systems, WODES 2010, Berlin, Germany, 30 August - 01 September 2010, vol.10, pp.98-103
- XXXIV. **Multi-objective decision making using fuzzy discrete event systems: A mobile robot example**  
Boutalis Y., Schmidt K. V.  
18th Mediterranean Conference on Control and Automation, MED'10, Marrakech, Morocco, 23 - 25 June 2010, pp.575-580
- XXXV. **A longest path problem for evaluating the worst case packet delay of switched ethernet**  
SCHMIDT K. V., SCHMİDT Ş. E.  
International Symposium on Industrial Embedded System (SIES), Trento, Italy, 7 - 09 July 2010
- XXXVI. **Performance evaluation of FlexRay CAN networks interconnected by a gateway**  
SCHMİDT Ş. E., Alkan M., SCHMIDT K. V., YÜRÜKLÜ E., Karakaya U.  
International Symposium on Industrial Embedded System (SIES), Trento, Italy, 7 - 09 July 2010
- XXXVII. **Controller aggregation for distributed discrete-event supervisors on a shared-medium network**  
Schmidt K. V.  
2nd IFAC Workshop on Dependable Control of Discrete Systems, DCDS'09, Bari, Italy, 10 - 12 June 2009, vol.2, pp.81-86
- XXXVIII. **Mobile robot navigation based on fuzzy discrete event systems**  
Tampakis G., Schmidt K. V., Boutalis Y.  
2nd IFAC International Conference on Intelligent Control Systems and Signal Processing, İstanbul, Turkey, 21 - 23 September 2009, vol.2
- XXXIX. **Redundant tasks in multitasking control of discrete event systems**  
Schmidt K. V., Cury J. E.  
2nd IFAC Workshop on Dependable Control of Discrete Systems, DCDS'09, Bari, Italy, 10 - 12 June 2009, vol.2, pp.16-21
- XL. **Reliable and safe operation of distributed discrete-event controllers: A networked implementation wi**  
Schmidt K. V., Schmidt E. G., Zaddach J.  
17th World Congress, International Federation of Automatic Control, IFAC, Seoul, South Korea, 6 - 11 July 2008, vol.17
- XLI. **Message scheduling for the static segment of the FlexRay protocol FlexRay protokolu statik bölütü için mesaj çizelgelenmesi**  
Schmidt E. G., Schmidt K. V.  
2008 IEEE 16th Signal Processing, Communication and Applications Conference, SIU, Aydın, Turkey, 20 - 22 April 2008
- XLII. **Shared medium communication for distributed discrete event control Dağıtık ayrik olayli denetleyiciler için paylaşımlı ortamda haberleşme**  
Schmidt E. G., Schmidt K. V.  
2008 IEEE 16th Signal Processing, Communication and Applications Conference, SIU, Aydın, Turkey, 20 - 22 April 2008
- XLIII. **LibFAUDES - an open source C++ library for discrete event systems**  
Moor T., Schmidt K. V., Perk S.  
9th International Workshop on Discrete Event Systems, WODES' 08, Goteborg, Sweden, 28 - 30 May 2008, pp.125-130
- XLIV. **Controller synthesis for an I/O-based hierarchical system architecture**  
Perk S., Moor T., Schmidt K. V.  
9th International Workshop on Discrete Event Systems, WODES' 08, Goteborg, Sweden, 28 - 30 May 2008, pp.474-479
- XLV. **Computation of supremal controllable sublanguages and infimal controllable superlanguages for fuzzy discrete event systems**  
Schmidt K. V., Boutalis Y.



2008 Mediterranean Conference on Control and Automation, MED'08, Ajaccio-Corsica, France, 25 - 27 June 2008, pp.400-405

- XLVI. **On maximal permissiveness of hierarchical and modular supervisory control approaches for discrete event systems**  
SCHMIDT K. V., Breindl C.  
2008 9th International Workshop on Discrete Event Systems, Goteborg, Sweden, 28 - 30 May 2008
- XLVII. **Communication of distributed discrete-event supervisors on a switched network**  
Schmidt K., Schmidt E. G.  
9th International Workshop on Discrete Event Systems, Goteborg, Sweden, 28 - 30 May 2008, pp.419-420
- XLVIII. **Hierarchical and decentralized multitasking control of discrete event systems**  
Schmidt K. V., De Queiroz M. H., Cury J. E. R.  
46th IEEE Conference on Decision and Control 2007, CDC, New Orleans, LA, United States Of America, 12 - 14 December 2007, pp.5936-5941
- XLIX. **A shared-medium communication architecture for distributed discrete event systems**  
Schmidt K., Schmidt E. G., Zaddach J.  
15th Mediterranean Conference on Control and Automation, Athens, Greece, 27 - 29 June 2007, pp.333-334
- L. **Modular and decentralized supervisory control of concurrent discrete event systems using reduced system models**  
Schmidt K. V., Marchand H., Gaudin B.  
8th International Workshop on Discrete Event Systems, WODES 2006, Ann Arbor, MI, United States Of America, 10 - 12 July 2006, pp.149-154
- LI. **Hierarchical discrete event systems with inputs and outputs**  
Perk S., Moor T., Schmidt K. V.  
8th International Workshop on Discrete Event Systems, WODES 2006, Ann Arbor, MI, United States Of America, 10 - 12 July 2006, pp.427-432
- LII. **Marked-string accepting observers for the hierarchical and decentralized control of discrete event systems**  
Schmidt K. V., Moor T.  
8th International Workshop on Discrete Event Systems, WODES 2006, Ann Arbor, MI, United States Of America, 10 - 12 July 2006, pp.413-418
- LIII. **A Hierarchical Architecture for Nonblocking Control of Discrete Event Systems**  
SCHMIDT K. V., MOOR T., PERK S.  
Proceedings of the 2005 IEEE International Symposium on, Mediterrean Conference on Control and Automation Intelligent Control, 2005., Limassol, Cyprus, 27 - 29 June 2005
- LIV. **Nonblocking hierarchical control of decentralized des**  
Schmidt K. V., Perk S., Moor T.  
16th Triennial World Congress of International Federation of Automatic Control, IFAC 2005, Prague, Czech Republic, 3 - 08 July 2005, vol.16, pp.163-168
- LV. **Control input synthesis for hybrid systems using informed search**  
Schmidt K. V., Kapinski J., Krogh B. H.  
2004 IEEE International Symposium on Computer Aided Control System Design, Taipei, Taiwan, 2 - 04 September 2004, pp.41-46
- LVI. **Hierarchical control for structural decentralized des**  
Schmidt K. V., Reger J., Moor T.  
7th International Workshop on Discrete Event Systems, WODES 2004, Reims, France, 22 - 24 September 2004, vol.37, pp.279-284
- LVII. **Reachability analysis using proximity based automata**  
Kapinski J., Schmidt K. V., Krogh B.  
7th International Workshop on Discrete Event Systems, WODES 2004, Reims, France, 22 - 24 September 2004, vol.37, pp.315-320
- LVIII. **Aspects on analysis and synthesis of linear discrete systems over the finite field  $F_q$**

## Supported Projects

- Schmidt K. V., TUBITAK Project, Cands: Otomotiv Siber Fiziksel Sistemlerin Deterministik, Gerçek Zamanlı, Güvenilir Ve Maliyet Verimli Araç İçi Haberleşmesi İçin Yeni Bir İşçerçevesi, 2020 - 2023
- Schmidt K. V., Project Supported by Other Private Institutions, İleri İş Makinelerinin Otonom Sürüş Fonksiyonlarının Tasarımı, Gerçekleştirilmesi ve Doğrulanması İçin AR-GE Projesi (2. Aşama), 2021 - 2022
- Schmidt K. V., Project Supported by Other Private Institutions, Otonom Araç Sürüş Fonksiyonlarının Yazılım Geliştirme ve Testi Simülasyon Çerçevesi İçin AR-GE Projesi, 2021 - 2022
- Schmidt K. V., Project Supported by Other Private Institutions, AGV Trafik Yönetim Sistemi: Tasarım, Gerçekleştirme ve Test, 2021 - 2022
- Schmidt K. V., Project Supported by Other Private Institutions, Otonom Araç Sürüş Fonksiyonlarının Yazılım Geliştirme ve Testi Simülasyon Çerçevesi için AR-GE Projesi, 2020 - 2021
- Schmidt K. V., Project Supported by Other Private Institutions, İleri İş Makinelerinin Otonom Fonksiyonlarının Tasarımı, Gerçekleştirilmesi ve Doğrulanması AR-GE Projesi, 2020 - 2021
- Schmidt Ş. E., Schmidt K. V., Project Supported by Other Private Institutions, Araç Arka Lambalarının Gömülü Yazılımının Test Edilmesi için Yazılım ve Donanım Geliştirilmesi Ar-Ge Projesi, 2019 - 2019
- SCHMİDT K. V., YENİAYDIN Y., Project Supported by Higher Education Institutions, ŞERİT TESPİTİ VE ŞERİT TAKİBİ: ALGORİTMA GELİŞTİRME, PROTOTİP UYGULAMASI VE DEĞERLENDİRME, 2018 - 2019
- SCHMİDT K. V., TUBITAK Project, Trafik Emniyeti Ve Trafik Verimi İçin Bir Akıllı Ulaşım Sistemleri İşçerçevesi: Çok Şeritli Otoyollarda Heterojen Otonom Araçların Uzunlamasına Ve Yanal Manevralarının Koordinasyonu, 2015 - 2018
- Schmidt K. V., TUBITAK Project, A Formal Framework and Continuous Workflow for the Controller Design, Failure Diagnosis and Failure Recovery of Reconfigurable Manufacturing Systems, 2011 - 2014

## Activities in Scientific Journals

- Discrete Event Dynamic Systems-Theory And Applications, Committee Member, 2017 - Continues
- TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Committee Member, 2017 - 2019

## Scientific Refereeing

- OPTICS AND LASER TECHNOLOGY, Journal Indexed in SCI-E, December 2019
- IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, SCI Journal, November 2019
- ROBOTICS AND AUTONOMOUS SYSTEMS, Journal Indexed in SCI-E, November 2019
- DISCRETE EVENT DYNAMIC SYSTEMS-THEORY AND APPLICATIONS, Journal Indexed in SCI-E, November 2019
- IEEE TRANSACTIONS ON FUZZY SYSTEMS, SCI Journal, October 2019
- INFORMATION SCIENCES, SCI Journal, July 2019
- JOURNAL OF ADVANCED TRANSPORTATION, Journal Indexed in SCI-E, July 2019
- COMPUTER STANDARDS & INTERFACES, Journal Indexed in SCI-E, March 2019
- European Journal Of Control, Journal Indexed in SCI-E, February 2019
- International Journal of Intelligent Unmanned Systems, Journal Indexed in ESCI, February 2019
- Automatica, SCI Journal, January 2019

## Metrics

Publication: 95

Citation (WoS): 506

Citation (Scopus): 1018

H-Index (WoS): 12

H-Index (Scopus): 16