Prof. ŞENAN ECE SCHMİDT

Personal Information

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International Researcher IDs
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ScopusID: 56212013600
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Education Information

Doctorate, Carnegie Mellon University, Electrical And Computer Engineering, United States Of America 2001 - 2004
Postgraduate, Carnegie Mellon University, Electrical And Computer Engineering, United States Of America 1998 - 2001
Undergraduate, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, Turkey 1993 - 1997

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Scheduling and Switching Architecture for Virtual Synchronous Frame (VSF), Carnegie Mellon University, Electrical And Computer Engineering, 2004
Postgraduate, A Novel Scalable Packet Switch Architecture with Quality of Service Support, Carnegie Mellon University, Electrical And Computer Engineering, 2001

Research Areas

Computer Networks, Network Architecture, Memory and Storage, Processor Architectures, Logic Design, Microprogramming and Control Structure, Application Based Architecture, Software

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 2017 - Continues
Associate Professor, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 2012 - 2017
Assistant Professor, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü,

2008 - 2011
Lecturer, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 2004 - 2008
Research Assistant, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 1997 - 2004

Academic and Administrative Experience

Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 2013 - 2016

Advising Theses

SCHMİDT Ş. E., Afdx (Avionics full-duplex switched ethernet) network simulation and performence analysis, Postgraduate, İ.PEŞKİRCİOĞLU(Student), 2022
SCHMİDT Ş. E., Extension of an open source resource management tool for heterogeneous cloud data centers: Implementation and evaluation, Postgraduate, T.DOĞAN(Student), 2022
SCHMİDT Ş. E., A workflow for offering hardware accelerators as a cloud computing service: Implementation and evaluation, Postgraduate, A.TIRLIOĞLU(Student), 2022
SCHMİDT Ş. E., Design, implementation and verification of a high-speed on-chip packet switch, Postgraduate, A.SEFA(Student), 2022
SCHMİDT Ş. E., A novel and precise false positive probability computation for bloom filters implemented with universal hash functions, Postgraduate, F.KOLTUK(Student), 2022
SCHMİDT Ş. E., A new fault-tolerant real-time ethernet protocol: Design and evaluation, Postgraduate, E.ATİK(Student), 2021
SCHMİDT Ş. E., A novel flexible on-chip switch architecture for reconfigurable hardware accelerators, Postgraduate, F.YAZICI(Student), 2021
SCHMİDT Ş. E., Schmidt Ş., C^3: configurable CAN FD controller: design, implementation and evaluation, Postgraduate, M.Ertuğ(Student), 2018
SCHMİDT K. V., SCHMİDT Ş. E., C3: Configurable CAN FD controller: Design, implementation and evaluation, Postgraduate, M.ERTUĞ(Student), 2018
SCHMİDT Ş. E., An end-to-end communication architecture for intelligent transportation systems: Design, implementation and latency analysis, Postgraduate, Ç.BAĞCI(Student), 2018
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 Ş. E., Efficient and fair adaptive streaming: Algorithm, implementation and evaluation, Postgraduate, A.ÖGE(Student), 2017
SCHMİDT Ş. E., Efficient algorithms for the frame packing and slot allocation of FlexRay V3.0, Postgraduate, C.ÇAKMAK(Student), 2017
SCHMİDT Ş. E., A low latency, high throughput and scalable hardware architecture for flow tables in software defined networks, Postgraduate, G.ERAL(Student), 2016
SCHMİDT Ş. E., Tzar – time zone based approximation to ring:An autonomous protection switching algortihm for globally resilient optical transport networks, Postgraduate, F.DÜZGÜN(Student), 2016
SCHMİDT Ş. E., A frame packing method to improve the schedulability on CAN and CAN-FD, Postgraduate, G.URUL(Student), 2015
SCHMİDT Ş. E., A generic and extendable system architecture for intelligent transportation systems, Postgraduate, K.ÇETİNKAYA(Student), 2015
SCHMİDT Ş. E., A Generic and extendable system architecture for intelligent transportation systems /, Postgraduate, K.Çetinkaya(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., Software implementations of QoS scheduling algorithms for high speed networks /, Postgraduate, A.PEHLİVANLI(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
OĞUZTÜZÜN M. H. S., SCHMİDT Ş. E., RSAR: A layered software architecture for cyber-physical systems, Postgraduate, E.AKAGÜNDÜZ(Student), 2015
SCHMİDT Ş. E., UNIBUS: A universal hardware architecture for serial bus interfaces with real-time support, Postgraduate, M.DUMAN(Student), 2015
DOĞRU A. H., SCHMİDT Ş. E., Dynamic analysis for complex event processing, Postgraduate, M.OĞUZ(Student), 2015
SCHMİDT Ş. E., 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., Message scheduling for the static and dynamic segment of FlexRay : algorithms and applications, Postgraduate, Ö.Kızılay(Student), 2015
SCHMİDT Ş. E., OĞUZTÜZÜN M. H. S., RSAR: a layered software archıtecture for cyber-physıcal systems /, Postgraduate, E.Akagündüz(Student), 2015
SCHMİDT Ş. E., UNIBUS: a universal hardware architecture for serial bus interfaces with real-time support /, Postgraduate, M.Duman(Student), 2015
SCHMİDT Ş. E., Message scheduling for the static and dynamic segment of flexray: Algorithms and applications, Postgraduate, Ö.KIZILAY(Student), 2015
SCHMİDT Ş. E., Dependability design for distributed real-time systems with broadcast communication /, Doctorate, Y.BORA(Student), 2014
SCHMİDT Ş. E., Implementation and performance analysis of switch fabric schedulers with a new accurate simulator software /, Postgraduate, A.ADA(Student), 2014
SCHMİDT Ş. E., Switch fabric schedulers with intelligent multi-class support: Design, implementation and evaluation on FPGA, Postgraduate, M.AKPINAR(Student), 2014
SCHMİDT Ş. E., Fast, efficient and dynamically optimized data and hardware architectures for string matching, Doctorate, S.ZENGİN(Student), 2014
SCHMİDT Ş. E., Switch fabric schedulers with intelligent multi-class support: design, implementation and evaluation on FPGA /, Postgraduate, M.Akpınar(Student), 2014
SCHMİDT Ş. E., Diagnosers for discrete event systems: Improved realization and examples, Postgraduate, B.ESER(Student), 2014
SCHMİDT Ş. E., Combined centralized and decentralized fault diagnosis for discrete event systems, Postgraduate, R.KARAV(Student), 2014
SCHMİDT Ş. E., The development and hardware implementation of a dynamically reconfigurable and area optimized cyclic redundancy check architecture, Postgraduate, Ö.YURT(Student), 2013
SCHMİDT Ş. E., HTTP http adaptive streaming architectures for video on demand and live TV services, Postgraduate, Y.Özcan(Student), 2013
SCHMİDT Ş. E., Software tool development for the automated configuration of flexray networks for in vehicle communication, Postgraduate, C.ÖZTÜRK(Student), 2013
SCHMİDT Ş. E., Implementation and evaluation of the dependability plane for the dynamic distributed dependable real time industrial protocol (D3RIP), Postgraduate, Ö.BERAT(Student), 2013
SCHMİDT Ş. E., An FPGA implementation of two-step trajectory planning for automatic parking, Postgraduate, H.ERTUĞRUL(Student), 2013
SCHMİDT Ş. E., Implementation and evaluation of the dynamic distributed real time industrial protocol (D^2RIP), Postgraduate, A.KAYA(Student), 2013
SCHMİDT Ş. E., Simulation-based VoIP performance evaluation under different traffic and codec conditions, Postgraduate, B.ÜNLÜ(Student), 2013
SCHMİDT Ş. E., The development and hardware implementation of a high-speed adaptable packet switch fabric, Postgraduate, E.EYÜP(Student), 2013
SCHMİDT Ş. E., The Development and hardware implementation of a high speed adaptable packet switch fabric, Postgraduate, E.Eyüp(Student), 2013

SCHMİDT Ş. E., A new service architecture for IPTV over internet, Postgraduate, M.ÖZKARDEŞ(Student), 2013
SCHMİDT Ş. E., Design and implementation of hardware architectures for high-speed IP address lookup, Doctorate, N.AYYILDIZ(Student), 2013
SCHMİDT Ş. E., HTTP adaptive streaming architectures for video on demand and live TV services, Postgraduate, Y.ÖZCAN(Student), 2013
SCHMİDT Ş. E., Schmidt Ş., Implementation and evaluation of the dependability plane for the dynamic distributed dependable real time industrial protocol ((D_3RIP)), Postgraduate, Ö.Berat(Student), 2013
SCHMİDT Ş. E., Development of strategies for reducing the worst-case message response times on the controller area network, Postgraduate, V.ÇELİK(Student), 2012
SCHMİDT Ş. E., A software tool for vehicle calibration, diagnosis and test via controller area network, Postgraduate, U.CİVELEK(Student), 2012
LEBLEBİCİOĞLU M. K., SCHMİDT Ş. E., QoC and QoS bargaining for message scheduling in networked control systems, Doctorate, S.ŞENOL(Student), 2012
SCHMİDT Ş. E., Design and implementation of scheduling and switching architectures for high speed networks, Doctorate, M.SANLI(Student), 2011
SCHMİDT Ş. E., Simulation and performance evaluation of a distributed real-time communication protocol for industrial embedded systems, Postgraduate, G.AYBAR(Student), 2011
SCHMİDT Ş. E., A faster intrusion detection method for high-speed computer networks, Postgraduate, M.CEM(Student), 2011
SCHMİDT Ş. E., Implementation and evaluation of a synchronous time-slotted medium access protocol for networked industrial embedded systems, Postgraduate, A.KORHAN(Student), 2011
SCHMİDT Ş. E., Implementing and evaluating the coordination layer and time-synchronization of a new protocol for industrial communication networks, Postgraduate, U.TURAN(Student), 2011
SCHMİDT Ş. E., Inter-connected flexray and can networks for in-vehicle communication: Gateway implementation and end-to-end performance study, Postgraduate, M.ALKAN(Student), 2010
SCHMİDT Ş. E., Ethernet based real time communications for embedded systems, Postgraduate, O.YILMAZ(Student), 2010
SCHMİDT Ş. E., Performance evaluation of flexray networks for in-vehicle communication, Postgraduate, A.DEMİRCİ(Student), 2009
SCHMİDT Ş. E., Connectionless traffic and variable packet size support in high speed network switches : improvements for the delay-limiter switch, Postgraduate, A.Akçasoy(Student), 2008
SCHMİDT Ş. E., Time-triggered controller area network (TTCAN) communication scheduling: A systematic approach, Postgraduate, U.KESKİN(Student), 2008
SCHMİDT Ş. E., Testing distributed real-time systems with a distributed test approach, Postgraduate, G.ÖZTAŞ(Student), 2008
SCHMİDT Ş. E., Connectionless traffic and variable packet size support in high-speed network switches: Improvements for the delay-limiter switch, Postgraduate, A.AKÇASOY(Student), 2008
SCHMİDT Ş. E., A new feedback-based contention avoidance algorithm for optical burst switching networks, Postgraduate, H.ALPER(Student), 2008
SCHMİDT Ş. E., An evaluation of aspect-oriented programming for embedded real-time systems, Postgraduate, Y.BORA(Student), 2007
SCHMİDT Ş. E., Scheduling algorithms for wireless CDMA networks, Postgraduate, S.ENDER(Student), 2007
SCHMİDT Ş. E., Routing algorithms for on chip networks, Postgraduate, M.ATAGOZİYEV(Student), 2007
SCHMİDT Ş. E., A new approach for the scalable intrusion detection in high-speed networks, Postgraduate, Ü.BURAK(Student), 2007
SCHMİDT Ş. E., A novel method for the detection of p2p traffic in the network backbone inspired by intrusion detection systems, Postgraduate, M.SOYSAL(Student), 2006

Jury Memberships

Associate Professor Exam, Associate Professor Exam, Middle East Technical University, October, 2019
Associate Professor Exam, Associate Professor Exam, Middle East Technical University, October, 2019
Associate Professor Exam, Associate Professor Exam, Middle East Technical University, March, 2019

Published journal articles indexed by SCI, SSCI, and AHCI

I. **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. **OMNeT++ Simulation Framework for Avionics Full-Duplex Switched Ethernet**
Gökçe İ. P., Üçüncü M., SCHMİDT Ş. E.
Journal of Aerospace Information Systems, vol.21, no.5, pp.443-454, 2024 (SCI-Expanded)

III. **Uniformity and Independence of H3 Hash Functions for Bloom Filters**
Koltuk F., SCHMİDT Ş. E.
IEEE Transactions on Computers, vol.73, no.8, pp.1913-1923, 2024 (SCI-Expanded)

IV. **Weak TDMA for the Deterministic Medium Access on the Controller Area Network**
Akpinar M., SCHMİDT Ş. E., SCHMİDT K. V.
IEEE Transactions on Intelligent Transportation Systems, vol.25, no.8, pp.8568-8577, 2024 (SCI-Expanded)

V. **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)

VI. **Highly Accurate Clock Synchronization With Drift Correction for the Controller Area Network**
Akpinar 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 Fast and Accurate Hardware String Matching Module with Bloom Filters**
Zengin S., SCHMİDT Ş. E.
IEEE TRANSACTIONS ON PARALLEL AND DISTRIBUTED SYSTEMS, vol.28, no.2, pp.305-317, 2017 (SCI-Expanded)

VIII. **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)

IX. **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)

X. **S-DIRECT: Scalable and Dynamically Reconfigurable TCAM Architecture for High-Speed IP Lookup**
Ayyildiz N., Schmidt E. G., Guran H. C.
COMPUTER JOURNAL, vol.58, no.6, pp.1443-1455, 2015 (SCI-Expanded)

XI. **Distributed Real-Time Protocols for Industrial Control Systems: Framework and Examples**
SCHMİDT K. W., SCHMİDT Ş. E.
IEEE TRANSACTIONS ON PARALLEL AND DISTRIBUTED SYSTEMS, vol.23, no.10, pp.1856-1866, 2012 (SCI-Expanded)

XII. **Hardware design and implementation of packet fair queuing algorithms for the quality of service support in the high-speed internet**
Sanli M., Schmidt E. G., Guran H. C.
COMPUTER NETWORKS, vol.56, no.13, pp.3065-3075, 2012 (SCI-Expanded)

XIII. **FPGEN: A fast, scalable and programmable traffic generator for the performance evaluation of high-speed computer networks**
Sanli M., SCHMİDT Ş. E., Guran H. C.

PERFORMANCE EVALUATION, vol.68, no.12, pp.1276-1290, 2011 (SCI-Expanded)

XIV. **INtERCEDE: An algorithmic approach to networked control system design**
Senol S., Leblebicioglu K., Schmidt E. G.
JOURNAL OF NETWORK AND COMPUTER APPLICATIONS, vol.34, no.4, pp.1326-1341, 2011 (SCI-Expanded)

XV. **Machine learning algorithms for accurate flow-based network traffic classification: Evaluation and comparison**
Soysal M., SCHMİDT Ş. E.
PERFORMANCE EVALUATION, vol.67, no.6, pp.451-467, 2010 (SCI-Expanded)

XVI. **Message Scheduling for the FlexRay Protocol: The Static Segment**
Schmidt K., SCHMİDT Ş. E.
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.58, no.5, pp.2170-2179, 2009 (SCI-Expanded)

XVII. **Message Scheduling for the FlexRay Protocol: The Dynamic Segment**
SCHMİDT Ş. E., Schmidt K.
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.58, no.5, pp.2160-2169, 2009 (SCI-Expanded)

XVIII. **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)

XIX. **A new scalable service discipline for real-time traffic: The framed-deadline scheduler**
Schmidt S. E. (., Kim H. S.
COMPUTER COMMUNICATIONS, vol.30, no.6, pp.1258-1277, 2007 (SCI-Expanded)

XX. **Frame-counter scheduler: A novel QoS scheduler for real-time traffic**
Schmidt S. E. (., Kim H. S.
COMPUTER COMMUNICATIONS, vol.29, no.12, pp.2181-2200, 2006 (SCI-Expanded)

Articles Published in Other Journals

I. **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. **RISC-V Simulator Library for Real-time Applications: Development and Verification Gerçek Zamanlı Uygulamalara Yönelik RISC-V Simülatör Kütüphanesi: Geliştirim ve Doğrulama**
Doğan U., Koyun A., Yalçın S. S., Schmidt Ş. E.
32nd IEEE Conference on Signal Processing and Communications Applications, SIU 2024, Mersin, Turkey, 15 - 18 May 2024

II. **An approach for defining faults in MIL-STD-1553 bus in an Avionics Architecture**
Sagirkaya H., SCHMİDT Ş. E.
42nd IEEE/AIAA Digital Avionics Systems Conference, DASC 2023, Barcelona, Spain, 1 - 05 October 2023

III. **Clock Synchronization for the Controller Area Network using Bit Timing Information CAN Ağlari için Bit Zamanlamasi Bilgisine Dayali Saat Senkronizasyonu**
Arkadas D. E., Akpinar M., SCHMİDT Ş. E., SCHMİDT K. V.
30th Signal Processing and Communications Applications Conference, SIU 2022, Safranbolu, Turkey, 15 - 18 May 2022

IV. **Hardware Accelerators for Cloud Computing: Features and Implementation**
Tirlioglu A., Demir O. B., Yazar A., Schmidt E. G.
29th IEEE Conference on Signal Processing and Communications Applications (SIU), ELECTR NETWORK, 9 - 11 June 2021

V. **Realistic Workload Generation for Cloud Data Centers Bulut Veri Merkezleri icin Gercekci Is Yuku Uretimi**
Koltuk F., SCHMİDT Ş. E.
28th Signal Processing and Communications Applications Conference, SIU 2020, Gaziantep, Turkey, 5 - 07 October 2020

VI. **An On-chip Switch Architecture for Hardware Accelerated Cloud Computing Systems Donanim Hizlandiricili Bulut Bilisim Sistemleri icin Yonga-ustu Anahtar Mimarisi**
Yazici F., Yildiz A. S., Yazar A., SCHMİDT Ş. E.
28th Signal Processing and Communications Applications Conference, SIU 2020, Gaziantep, Turkey, 5 - 07 October 2020

VII. **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

VIII. **A Novel Method for the Synthetic Generation of Non-I.I.D Workloads for Cloud Data Centers**
Koltuk F., SCHMİDT Ş. E.
2020 IEEE Symposium on Computers and Communications, ISCC 2020, Rennes, France, 7 - 10 July 2020, vol.2020-July

IX. **CLOUDGEN: Workload generation for the evaluation of cloud computing systems CLOUDGEN: Bulut Bilişim Sistemlerinin Başarim Değerlendirmesi icin Iş Yuku Uretimi**
Koltuk F., Yazar A., Schmidtt E. G.
27th Signal Processing and Communications Applications Conference, SIU 2019, Sivas, Turkey, 24 - 26 April 2019

X. **A generalization of openstack for managing heterogeneous cloud resources Heterojen bulut kaynaklarinin yonetimi için openstack genelleştirimi**
Erol A., Yazar A., Schmidt E. G.
27th Signal Processing and Communications Applications Conference, SIU 2019, Sivas, Turkey, 24 - 26 April 2019

XI. **ACCLOUD-MAN - Power efficient resource allocation for heterogeneous clouds ACCLOUD-MAN - Heterojen bulutlarda güç etkin kaynak atamasi**
Ekici N. U., Schmidt K. W., Yazar A., Schmidt E. G.
27th Signal Processing and Communications Applications Conference, SIU 2019, Sivas, Turkey, 24 - 26 April 2019

XII. **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

XIII. **OpenStack Generalization for Hardware Accelerated Clouds**
Erol A., Yazar A., Schmidt E. G.
28th International Conference on Computer Communications and Networks (ICCCN), Valencia, Spain, 29 July - 01 August 2019

XIV. **ACCLOUD-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

XV. **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

XVI. **EFficient Adaptive STreaming (EFAST): Algorithm, implementation and evaluation-Verimli Uyarlanabilir Akıs (EFAST): Algoritma,Gerçeklestirim, Degerlendirme**
Öge A., SCHMİDT Ş. E.
2018 26th Signal Processing and Communications Applications Conference (SIU), Izmir, Turkey, 2 - 05 May 2018

XVII. **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

XVIII. **FASST: A high performance scalable rule table hardware architecture for software defined networks-FASST: Yazılım Tanımlı Bilgisayar Agları içinYüksek Ba¸sarımlı, Ölçeklenebilir bir Kural TablosuDonanım Mimarisi**
ERAL G., SCHMİDT Ş. E.
2018 26th Signal Processing and Communications Applications Conference (SIU), Izmir, Turkey, 2 - 05 May 2018

XIX. **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

XX. **ACCLOUD (Accelerated CLOUD): A novel FPGA-Accelerated cloud archictecture-ACCLOUD: FPGA ile Hızlandırılmış Yeni bir BulutMimarisi**
YAZAR A., EROL A., SCHMİDT Ş. E.
2018 26th Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018

XXI. **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

XXII. **A Configurable CAN FD controller: Architecture and implementation**
Afşin M. E., SCHMIDT K. V., SCHMİDT Ş. E.
2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017

XXIII. **A communication architecture for Intelligent Transportation Applications**
Bağcı Ç., SCHMİDT Ş. E.
2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017

XXIV. **A fast and optimal static segment scheduling method for FlexRay v3.0**
ÇAKMAK C., SCHMİDT Ş. E., SCHMIDT K. V.
2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017

XXV. **Improved load distribution for controller area network**
Batur A., SCHMİDT Ş. E., SCHMIDT K. V.
2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017

XXVI. **Offset Assignment on Controller Area Network: Improved Algorithms and Computational Evaluation**
Batur A., SCHMİDT K. W., SCHMİDT Ş. E.
12th IEEE International Symposium on Industrial Embedded Systems (SIES), Toulouse, France, 14 - 16 June 2017, pp.82-90

XXVII. **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

XXVIII. **Window Based Fair Aggregator for the Scalable Support of QoS Guarantees in the Backbone: An Experimental Performance Study**
Sanli M., Pehlivanli A., SCHMİDT Ş. E.
International Conference on Computing, Networking and Communications (ICNC), Hawaii, United States Of America, 15 - 18 February 2016

XXIX. **A Flow Aggregation Method for the Scalable and Efficient Quality of Service Support in Next Generation Networks**
Sanli M., SCHMİDT Ş. E., Guran H. C.
IEEE Global Communications Conference (GLOBECOM), Georgia, United States Of America, 9 - 13 December 2013, pp.2243-2248

XXX. **CALMTV: A Cluster Based Application Layer Multicast Architecture for IPTV**
Ozkardes M., SCHMİDT Ş. E.
IEEE Global Communications Conference (GLOBECOM), Georgia, United States Of America, 9 - 13 December 2013, pp.1693-1698

XXXI. **Optimal Message Scheduling for the Static Segment of FlexRay**
SCHMİDT K. W., SCHMİDT Ş. E.
IEEE 72nd Vehicular Technology Conference Fall 2010, Ottawa, Canada, 6 - 09 September 2010

XXXII. **Schedulability Analysis and Message Schedule Computation for the Dynamic Segment of FlexRay**
SCHMİDT K. W., SCHMİDT Ş. E.
IEEE 72nd Vehicular Technology Conference Fall 2010, Ottawa, Canada, 6 - 09 September 2010

XXXIII. **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

XXXIV. **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

XXXV. **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

XXXVI. **An evaluation of aspect oriented programming for embedded real-time systems**
Kartal Y. B., Schmidt E. G.
22nd International Symposium on Computer and Information Sciences, ISCIS 2007, Ankara, Turkey, 7 - 09 November 2007, pp.370-375

XXXVII. **An accurate evaluation of machine learning algorithms for flow-based P2P traffic detection**
Soysal M., Schmidt E. G.
22nd International Symposium on Computer and Information Sciences, ISCIS 2007, Ankara, Turkey, 7 - 09 November 2007, pp.393-398

XXXVIII. **An intrusion detection based approach for the scalable detection of P2P traffic in the national academic network backbone**
SCHMİDT Ş. E., Soysal M.
7th International Symposium on Computer Networks, İstanbul, Turkey, 16 - 18 June 2006, pp.128-129

Supported Projects

Kurtuluş D. F., Tekinalp O., Kayran A., Yaman Y., Gürses E., Çöker D., Yavrucuk I., Leblebicioğlu M. K., Konukseven E. I., Aksel M. H., et al., Company, ODTÜ-TAİ VLA projesi 1. faz, 2017 - 2024

Schmidt Ş. E., Project Supported by Other Private Institutions, ARINC664 Ağlarının Konfigürasyonlarının Analizi İçin Yazılım Aracı Geliştirilmesi Ar-Ge Projesi, 2021 - 2022

Schmidt Ş. E., TUBITAK Project, Accloud (Accelerated Cloud): Fpga İle Hizlandırılmış Yeni Bir Bulut Mimarisi, 2018 - 2022

Schmidt Ş. E., Schmidt K. V., Project Supported by Other Private Institutions, Araç Arka Lambalarının Gömülü Yazılımının TestEdilmesi için Yazılım ve Donanım Geliştirilmesi Ar-Ge Projesi, 2019 - 2019

SCHMİDT Ş. E., GÜNEY A., BALO E., Project Supported by Higher Education Institutions, METU-STARS: YÜKSEK BAŞARIMLI YENİ BİR SİSTEMATİK YAZILIM TANIMLI AĞ (SOFTWARE DEFINED NETWORKS-SDN) YÖNETİMİ, 2018 - 2019

SCHMİDT Ş. E., Schmidt K. V., Afşin M. E., Project Supported by Higher Education Institutions, ARAÇ İÇİ HABERLEŞME İÇİN CAN-FD KONTROLCUSU (METU-CAN): FPGA GELİŞTİRİMİ, GERÇEKLEŞTİRİMİ VE TESTLERİ, 2017 - 2017

SCHMİDT Ş. E., Öge A., Project Supported by Higher Education Institutions, METU-HAS: YÜKSEK BAŞARIMLI YENİ BİR SİSTEMATİK HTTP ADAPTIVE STREAMING (HAS) YÖNTEMİ, 2017 - 2017

Schmidt Ş. E., Project Supported by Other Private Institutions, Yeni Nesil Traktörler için Araç-içi ve Araç-X (V2X) Haberleşme Mimarisi Geliştirilmesi Ar-Ge Projesi, 2016 - 2017

SCHMİDT Ş. E., Project Supported by Other Private Institutions, Yeni Nesil Traktörlerde Uygulanabilecek Gövde Kontrol Sistemi Modülü Geliştirilmesi AR GE projesi, 2016 - 2016
SCHMİDT Ş. E., Project Supported by Higher Education Institutions, AKILLI ULAŞIM SİSTEMLERİ (AUS) İÇİN GERÇEK ZAMANLI HABERLEŞME: DENEYSEL ÖLÇÜMLER VE MİMARİ ÖNERİSİ, 2016 - 2016
SCHMİDT Ş. E., Project Supported by Other Private Institutions, Araç içi CAN Bus Ağları ve Uzak Sunucu ile Haberleşme Sağlayan Infotainment ve Diyagnozi İşlevleri Olan Araç Ünitesi için Gömülü Yazılım Geliştirme Ar Ge Projesi, 2014 - 2015
SCHMİDT Ş. E., Project Supported by Other Private Institutions, FlexRay Ve CAN Bus Ağları için Algoritmik Çizelgelendirme Yazılımı Geliştirme ve Kulanıcılar için Arayüz GUI Geliştirme Ar Ge Projesi, 2013 - 2015
SCHMİDT Ş. E., Project Supported by Higher Education Institutions, Endüstriyel Ağ Uygulamaları İçin Paylaşımlı Ortamda Haberleşme Protokolu Geliştirilmesi, 2009 - 2009

Activities in Scientific Journals

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Assistant Editor/Section Editor, 2017 - Continues

Scientific Refereeing

IEEE TRANSACTIONS ON CLOUD COMPUTING, SCI Journal, October 2019

Metrics

Publication: 59
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