Curriculum Vitæ

Bechir ZALILA — Engineer — Doctor

Mar. Stat.	:	Married		**Date of Birth**	:	26 May 1981
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Scopus	:	http://www.scopus.com/authid/detail.uri?authorId=18234428400
Google Scholar	:	http://scholar.google.com/citations?user=enphWHcAAAAJ
Web of Science	:	http://www.webofscience.com/wos/author/record/IST-2173-2023

Positions

2011-present　　**Associate Professor**.　　　　　　　　　　　　　　　　SFAX/TUNISIA
Affiliation: teaching and research staff at DGIMA (Department of Computer Engineering and Applied Mathematics)
Location: ENIS (National Engineering School of Sfax)
Second year: (2017-present) in charge of the "Python Programming and M2M" module.
Second year: (2019-present) in charge of the "Embedded LINUX" module.
First year: (2020-2021) in charge of the "Graph Theory" module.
Second year: (2018-2021) in charge of the "Software Maintenance" module.
Third year: (2018-2019) in charge of the module "Problem Solving and Advanced Programming".
Third year: (2018-2019) in charge of the module "Advanced Programming in C++".
Second year: (2011-2017) responsible for the modules "Distributed Software Engineering" and "Real-Time Systems and Scheduling".
Second and Third years: (2011-2017) in charge of "Advanced Software Engineering" (ASE) option and the modules "Software Maintenance" and "Architecture Description Languages".
First year: (2013-2014) in charge of the module "UNIX Environment".
Third year: (2011-2012) in charge of the track (old regime) "Distributed Systems Engineering" (DSE) and the module "Development Platforms for Distributed Applications".
First year: (2011-2012) in charge of the module "Structured Programming".

2009-2011　　**University Assistant**.　　　　　　　　　　　　　　　　SFAX/TUNISIA
Affiliation: teaching and research staff at DGIMA (Department of Computer Engineering and Applied Mathematics)
Location: ENIS (National Engineering School of Sfax)
First year: (2009-2011) in charge of the module "Structured Programming".
Second year: (2009-2011) in charge of the module "Distributed Software Engineering".
Third year: (2009-2011) in charge of the specialty "Distributed Systems Engineering" (DSE) and the modules "Development Platforms for Distributed Applications" and "Software Maintenance".

Education and Degrees

2022
Habilitation in Computer Systems Engineering.
Topic: Architectural Modeling at the Service of Embedded Distributed Real-time Systems - Contributions to Dynamic Configuration, Fault Tolerance, Optimization, and Formal Verification.

Habilitation defended on May 28, 2022.
Location: ENIS (National Engineering School of Sfax)
Jury Members.
Mohamed Abid, Professor, National Engineering School of Sfax, President.
Rafik Bouaziz, Emeritus Professor, Faculty of Economic Sciences and Management of Sfax, Referee.
Leila Ben Ayed, Professor, National School of Computer Sciences, Referee.
Khalil Drira, Research Director, National Centre for Scientific Research, Examiner.
Mohamed Jmaiel, Professor, Digital Research Centre of Sfax, Examiner.

Sfax/Tunisia

2005-2008
(3 years)
Ph.D. in Computer Science and Networks.
Topic: Configuration and deployment of embedded distributed real-time applications using an architecture description language.

Thesis defended on November 07, 2008.
Grade *Very Honorable*
Location: TELECOM Paris (École Nationale Supérieure des Télécommunications)
Jury Composition.
Jacques Malenfant, Professor, Pierre & Marie Curie University, President.
Yvon Kermarrec, Professor, TELECOM Bretagne, Referee.
Lionel Seinturier, Professor, University of Lille 1, Referee.
Peter Feiler, Research Director, Carnegie Mellon University, Examiner.
Franco Gasperoni, Managing Director, AdaCore, Examiner.
Laurent Pautet, Professor, TELECOM Paris, Thesis Director.
Jérôme Hugues, Lecturer, TELECOM Paris, Co-director of thesis.

Paris/France

2004-2005
(1 year)
Research Master's in Computer Science.
Specialization DSA (*Distributed Systems and Applications*).
Track ERTS (*Embedded or Real-time Systems*).
Topic: Optimization, Determinism, and Asynchronism in CORBA Stubs and Skeletons for Real-Time Distributed Systems.

Master's defended on September 15, 2005.
Grade *Fairly Good*
Location: UPMC (Pierre & Marie Curie University (Paris VI))
Jury Composition.
Fabrice Kordon, Professor, Pierre & Marie Curie University, President.
Bertrand Dupouy, Lecturer, TELECOM Paris, Examiner.
Laurent Pautet, Professor, TELECOM Paris, Supervisor.

Paris/France

2002-2005
(3 years)
Engineering Degree.
Fields of study: Software Engineering, System Architecture, Electronics, and Robotics
Location: TELECOM Paris

Paris/France

2000-2002 (2 years)	Preparatory Education for Entrance Exams to Grandes Écoles of Engineering. **Specialization:** MP* **Location:** IPEST (Preparatory Institute for Scientific and Technical Studies)	LA MARSA/TUNISIA
1993-2000 (7 years)	Secondary Education. Baccalaureate in Mathematics obtained with grade *Very Good* **Location:** Secondary School April 9, 1938	SFAX/TUNISIA

Thesis Supervision

2009-2013

▷ Participation in the supervision of FATMA KRICHEN, who completed a thesis titled *"Software Architectures with Reconfigurable Components for HRT Systems"*.
Thesis defended on September 16, 2013, at the University of Toulouse Le Mirail.
Jury Members:

   ▷ *MOHAMED ABID: examiner and jury president*

   ▷ *FRANK SINGHOFF and MOHAMED MOSBAH: referees*

   ▷ *MOHAMED JMAIEL and BERNARD COULETTE: thesis co-directors*

   ▷ *BRAHIM HAMID and BECHIR ZALILA: co-supervisors*

*Thesis awarded with the distinction **Very Honorable**.*

2011-2017

▷ Participation in the supervision of WAFA GABSI, who completed a thesis titled *"Fault Tolerance for Distributed Real-time Systems: From Modeling to Implementation"*.
Thesis defended on April 4, 2017, at the Digital Research Centre of Sfax.
Jury Members:

   ▷ *FAYEZ GARGOURI: jury president*

   ▷ *MOHAMED KAANICHE and ADEL MAHFOUDHI: referees*

   ▷ *MOHAMED ABID: examiner*

   ▷ *MOHAMED JMAIEL: thesis director*

   ▷ *BECHIR ZALILA: guest*

*Thesis awarded with the distinction **Very Honorable**.*

2012-2018

▷ Participation in the supervision of RAHMA BOUAZIZ, who completed a thesis titled *"Multi-objective Optimization and Design Space Exploration of Critical Real-Time Systems"*.
Thesis defended on July 30, 2018, at the National School of Engineers of Sfax.
Jury Members:

   ▷ *MOHAMED ABID: jury president*

   ▷ *SAMIR BEN AHMED and HANÈNE BEN ABDALLAH: referees*

   ▷ *ADEL MAHFOUDHI: examiner*

   ▷ *MOHAMED JMAIEL: thesis director*

   ▷ *FRANK SINGHOFF and BECHIR ZALILA: guests*

*Thesis awarded with the distinction **Very Honorable with Jury's Congratulations**.*

▷ Participation in the supervision of Hana MKAOUAR, who completed a thesis titled *"A Formal Approach for Real-time Systems Engineering"*.
Thesis defended on February 9, 2019, at the National School of Engineers of Sfax.
Jury Members:

  ▷ *Ahmed HADJ KACEM: jury president*

  ▷ *Mohamed ABID and Mohamed KAANICHE: referees*

  ▷ *Mohamed BEN AOUICHA: examiner*

  ▷ *Mohamed JMAIEL: thesis director*

  ▷ *Jérôme HUGUES and Bechir ZALILA: guests*

*Thesis awarded with the distinction **Very Honorable with Jury's Congratulations**.*

2023-present

▷ Participation in the supervision of Souha BEN HAMOUDA, who is completing a thesis titled *"A Framework for Automatic Conversion of Text and Speech to Sign Language"*.

Supervision of Research Master's Projects

2006-2007

▷ Participation in the supervision[1] of Julien DELANGE, who completed an internship titled *"C Code Generation for Critical Applications"* as part of his Research Master's in SAR at ENST, Paris.
Master's defended in September 2007.
*Grade: **Good**.*

2007-2008

▷ Participation in the supervision[1] of Gilles LASNIER who completed an internship titled *"Study and Support of the AADLv2 Standard in Ocarina"* as part of his Research Master's in SAR at TELECOM ParisTech.
Master's defended in September 2008.
*Grade: **Good**.*

2009-2010

▷ Co-supervision[2] of Sihem LOUKIL who completed a project titled *"Extension of an Architecture Description Language for Aspect-Oriented Programming"* as part of her Research Master's in NTSID at ENIS.
Master's defended on July 30, 2010.
*Grade: **Very Good**.*

2010-2011

▷ Co-supervision[3] of Amal GASSARA who completed a project titled *"Formal Verification of Non-Functional Properties of Dynamically Reconfigurable RTES"* as part of her Research Master's in NTSID at ENIS.
Master's defended on July 29, 2011.
*Grade: **Very Good**.*

▷ Co-supervision[3] of Wafa GABSI who completed a project titled *"@Run.Time Modeling of Component-Based Applications"* as part of her Research Master's in NTSID at ENIS.
Master's defended on August 3, 2011.
*Grade: **Very Good**.*

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[1] As a doctoral candidate, with Prof. Laurent PAUTET
[2] As a university assistant, with Prof. Mohamed JMAIEL
[3] As a university assistant professor, with Prof. Mohamed JMAIEL

▷ Co-supervision[3] of Aʟᴠɪɴᴇ BOAYE BELLE who completed a project titled *"Design and Development of an Execution Support for Dynamically Reconfigurable HRT Systems"* as part of her Research Master's in NTSID at ENIS.
Master's defended on August 3, 2011.
*Grade: **Very Good**.*

2011-2012

▷ Supervision of Rᴀʜᴍᴀ BOUAZIZ who completed a project titled *"Extension and Adaptation of an Aspect Language for Real-Time Systems"* as part of her Research Master's in NTSID at ENIS.
Master's defended on July 28, 2012.
*Grade: **Very Good**.*

▷ Supervision of Aᴍᴀʟ GHORBEL who completed a project titled *"Code Generation for Dynamically Reconfigurable Real-Time Embedded Systems according to the MDA Approach"* as part of her Research Master's in NTSID at ENIS.
Master's defended on September 22, 2012.
*Grade: **Very Good**.*

2012-2013

▷ Supervision of Mᴀʀɪᴇᴍ CHAABANE who completed a project titled *"Monitoring for the Architectural Model Reconstruction of Service-Oriented Applications"* as part of her Research Master's in MRI2M at ISIMS (Higher Institute of Computer Science and Multimedia of Sfax).
Master's defended on January 25, 2014.
*Grade: **Very Good**.*

▷ Supervision of Dᴏʀʀᴀ KTARI who completed a project titled *"Definition and Implementation of Code Generation Rules from a Modeling Language of Errors to a Programming Language"* as part of her Research Master's in SINT at FSEGS (Faculty of Economics and Management of Sfax).
Master's defended on November 6, 2014.
*Grade: **Good**.*

Advanced Industrial Trainings and Reinforcement Sessions

▷ 2018-2021: Professional trainings delivered to engineers at **Sofia Academy** in the following areas:

  ▷ Algorithms and C programming
  ▷ System Programming under Linux (POSIX)
  ▷ Fundamentals of Linux System
  ▷ Embedded Linux
  ▷ Yocto
  ▷ Android System (AOSP)

▷ 2021: Workshop and reinforcement session delivered to engineers at **Habemus! Solutions** in the following area:

  ▷ Yocto

▷ 2021: Professional training delivered at the **Sfax Technopole** in the following areas:

  ▷ Fundamentals of the Linux system
  ▷ Shell Scripts under Linux
  ▷ Embedded Linux
  ▷ System Programming under Linux (POSIX)

▷ 2022: Professional training delivered at the training center **ESPS** for the account of **Primatec Engineering** in the following area:

  ▷ Embedded Linux

▷ 2023: Professional training delivered to engineers at **Segula Technologies** in the following areas:

  ▷ Embedded Linux
  ▷ Yocto

▷ 2023: Professional training delivered at the training center **ESPS** in the following area:

  ▷ Embedded Linux

Teaching

2005-2006
(42 hours)

▷ Practical sessions in distributed and real-time computing (Ada and JAVA). MACS module. TELECOM Paris (21 hours)

▷ Practical sessions in real-time computing (Ada). TRAM module. TELECOM Paris (3 hours)

▷ Practical sessions in distributed computing (Ada/DSA) and distributed algorithms (Ada). ISAR module. TELECOM Paris (6 hours)

▷ Practical sessions in concurrent and real-time programming (Ada). FSET module. UPMC (6 hours)

▷ Practical sessions in real-time and distributed computing (Ada). ETER module. UPMC (6 hours)

2006-2007
(87 hours)

▷ Lecturer in AADL language for students of module INF-342. TELECOM Paris (3 hours)

▷ Directed sessions in "Shell" for students admitted on qualifications. TELECOM Paris (1.5 hours)

▷ Design and supervision of mini-projects in real-time/distributed computing for students of module INF-223. TELECOM Paris (6 hours)

▷ Team project for first-year students. TELECOM Paris (9 hours)

▷ Practical sessions in C language for first-year students. TELECOM Paris (15 hours)

▷ Practical sessions in ESTEREL language for students of module INF-222. TELECOM Paris (12 hours)

▷ Practical sessions in Ada/Real-time language for students of the FSET module of the SAR Master's. UPMC (4 hours)

▷ Practical sessions in Ada/Real-time language for students of module INF-223. TELECOM Paris (12 hours)

▷ Practical sessions in AADL and middleware for students of the ETER module of the SAR Master's. UPMC (4 hours)

▷ Practical sessions in "Protocols" for students of module INF-352. TELECOM Paris (6 hours)

▷ Practical sessions in Ada/DSA and group communications for students of module INF-346. TELECOM Paris (6 hours)

▷ Practical sessions in AADL and distributed real-time computing for students of module INF-342. TELECOM Paris (9 hours)

2007-2008
(49.5 hours)

▷ Lecturer in AADL language for students of the RAAR module of the SAR Master's. UPMC (2 hours)

▷ Lecturer in AADL language for students of the ETER module of the SAR Master's. UPMC (2 hours)

▷ Lecturer in AADL language for students of module INF-342. TELECOM Paris (3 hours)

▷ Directed sessions on real-time scheduling theory for students of module INF-342. TELECOM Paris (1.5 hours)

▷ Practical sessions in system programming language (in C) for first-year students. TELECOM Paris (7.5 hours)

▷ Practical sessions in AADL language for students of the RAAR module of the SAR Master's. UPMC (2 hours)

▷ Practical sessions in Ada/Real-time language for students of the FSET module of the SAR Master's. UPMC (4 hours)

▷ Practical sessions in Ada/Ravenscar for students of the FSET module of the SAR Master's. UPMC (2 hours)

▷ Practical sessions in POSIX programming (in C) for students of the FSET module of the SAR Master's. UPMC (4 hours)

▷ Practical sessions in AADL language for students of the ETER module of the SAR Master's. UPMC (4 hours)

▷ Practical sessions in RT-CORBA (Ada) for students of the ETER module of the SAR Master's. UPMC (2 hours)

▷ Practical sessions in group communications for students of module INF-346. TELECOM Paris (3 hours)

▷ Practical sessions in POSIX programming (in C) for students of module INF-223. TELECOM Paris (1.5 hours)

▷ Practical sessions in Ada programming for students of module INF-223. TELECOM Paris (6 hours)

▷ Practical sessions in CORBA (Ada) for students of module INF-223. TELECOM Paris (3 hours)

▷ Practical sessions in Java sockets for students of module INF-223. TELECOM Paris (1.5 hours)

▷ Practical sessions in AADL and distributed real-time computing for students of module INF-342. TELECOM Paris (4.5 hours)

2008-2009 (S1)
(18 hours)

▷ Lecturer in AADL language for students of the RAAR module of the SAR Master's. UPMC (2 hours)

▷ Lecturer in AADL language for students of the ETER module of the SAR Master's. UPMC (2 hours)

▷ Practical sessions in Rhapsody C++ (UML + Statecharts) for students of module INF-222. TELECOM Paris (3 hours)

▷ Practical sessions in AADL language for students of the RAAR module of the SAR Master's. UPMC (2 hours)

▷ Practical sessions in Ada programming for students of module INF-223. TELECOM Paris (3 hours)

▷ Practical sessions in Ada/Real-time language for students of the FSET module of the SAR Master's. UPMC (4 hours)

▷ Practical sessions in LUSTRE language for students of the LS module of the SAR Master's. UPMC (4 hours)

2008-2009 (S2)
(180 hours)

▷ Lecturer in "Structured Programming" for first-year students, computer engineering. ENIS (15 hours, 4 sections)

▷ Lecturer in "Distributed Software Engineering" for second-year students, computer engineering. ENIS (30 hours, 4 sections)

2009-2010
(240 hours)

▷ Lecturer in "Structured Programming" for first-year students, computer engineering. ENIS (15 hours, 4 sections)

▷ Lecturer in "Distributed Software Engineering" for second-year students, computer engineering. ENIS (30 hours, 4 sections)

▷ Lecturer in "Development Platforms for Distributed Applications" for third-year students, computer engineering, DSE track (Distributed Systems Engineering). ENIS (30 hours, 1 section)

▷ Lecturer in "Software Maintenance" for third-year students, computer engineering, SE track (Software Engineering). ENIS (30 hours, 1 section)

2010-2011
(240 hours)

▷ Practical session instructor in "Structured Programming" for first-year students, computer engineering. ENIS (15 hours, 4 sections)

▷ Lecturer in "Distributed Software Engineering" for second-year students, computer engineering. ENIS (30 hours, 4 sections)

▷ Lecturer in "Development Platforms for Distributed Applications" for third-year students, computer engineering, DSE track (Distributed Systems Engineering). ENIS (30 hours, 1 section)

▷ Lecturer in "Software Maintenance" for third-year students, computer engineering, SE track (Software Engineering). ENIS (30 hours, 1 section)

2011-2012
(237 hours)

▷ Lecturer in "Component-Oriented Modeling" for second-year students, SINT Research Master's. FSEGS (Faculty of Economics and Management of Sfax) (42 hours of lectures, 1 section)

▷ Lecturer and practical session instructor in "distributed software engineering" for second-year students, computer engineering, ASE (Advanced Software Engineering) and NCT (Network and Communication Techniques) tracks. ENIS (15 hours of lectures, 3 sections, 15 hours of practicals, 3 groups)

▷ Lecturer in "Real-time Systems and Scheduling" for second-year students, computer engineering ASE track (Advanced Software Engineering). ENIS (22.5 hours of lectures, 2 sections)

▷ Lecturer in "Development Platforms for Distributed Applications" for third-year students, computer engineering, DSE track (Distributed Systems Engineering). ENIS (30 hours, 1 section)

▷ Lecturer in "Software Maintenance" for third-year students, computer engineering, SE track (Software Engineering). ENIS (30 hours, 1 section)

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2012-2013
(216 hours)

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▷ Lecturer in "Component-Oriented Modeling" for second-year students, SINT Research Master's. FSEGS (21 hours of lectures, 1 section)

▷ Lecturer in "Distributed Software Engineering" for second-year students, computer engineering. ENIS (15 hours of lectures, 3 sections)

▷ Lecturer in "Real-time Systems and Scheduling" for second-year students, computer engineering ASE track (Advanced Software Engineering). ENIS (22.5 hours of lectures, 2 sections)

▷ Lecturer in "Architecture Description Languages" for third-year students, computer engineering, NCT track (Network and Communication Techniques). ENIS (30 hours, 1 section)

▷ Lecturer and practical session instructor in "Software Maintenance" for third-year students, computer engineering, ASE track (Advanced Software Engineering). ENIS (22.5 hours of lectures, 2 sections and 15 hours of practicals, 2 groups)

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2013-2014
(265 hours)

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▷ Lecturer in "UNIX Environment" for first-year students, computer engineering. ENIS (20 hours of lectures, 2 sections)

▷ Lecturer in "Distributed Software Engineering" for second-year students, computer engineering, ASE (Advanced Software Engineering) and NCT (Network and Communication Techniques) tracks. ENIS (15 hours of lectures, 3 sections)

▷ Lecturer in "Real-time Systems and Scheduling" for second-year students, computer engineering ASE track (Advanced Software Engineering). ENIS (22.5 hours of lectures, 2 sections)

▷ Lecturer in "Architecture Description Languages" for third-year students, computer engineering, ASE (Advanced Software Engineering) and NCT (Network and Communication Techniques) tracks. ENIS (30 hours, 3 sections)

▷ Lecturer in "Software Maintenance" for third-year students, computer engineering, ASE track (Advanced Software Engineering). ENIS (22.5 hours of lectures, 2 sections)

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2014-2015
(250h30)

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▷ Lecturer in "Concurrent and Parallel Programming" for second-year students, computer engineering, GLID track. IIT (International Institute of Technology, Sfax) (24 hours of lectures, 1 section)

▷ Lecturer in "Distributed Systems Development" for second-year students, computer engineering, GLID track. IIT (24 hours of lectures, 1 section)

▷ Lecturer in "Distributed Software Engineering" for second-year students, computer engineering, ASE (Advanced Software Engineering) and NCT (Network and Communication Techniques) tracks. ENIS (15 hours of lectures, 2 sections)

▷ Lecturer in "Real-time Systems and Scheduling" for second-year students, computer engineering ASE track (Advanced Software Engineering). ENIS (22.5 hours of lectures, 1 section)

▷ Lecturer in "Internet of Things and Mobile Internet", Mobile Internet part, for second-year students, computer engineering TRANSMEDIA track. ENIS (15 hours of lectures, 1 section)

▷ Lecturer in "Architecture Description Languages" for third-year students, computer engineering, ASE (Advanced Software Engineering) and NCT (Network and Communication Techniques) tracks. ENIS (30 hours, 3 sections)

▷ Lecturer in "Software Maintenance" for third-year students, computer engineering, ASE track (Advanced Software Engineering). ENIS (22.5 hours of lectures, 2 sections)

2015-2016
(180 hours)

▷ Lecturer in "Distributed Software Engineering" for second-year students, computer engineering, ASE (Advanced Software Engineering) and NCT (Network and Communication Techniques) tracks. ENIS (15 hours of lectures, 2 sections)

▷ Lecturer in "Real-time Systems and Scheduling" for second-year students, computer engineering ASE track (Advanced Software Engineering) and SE (Embedded Systems). ENIS (22.5 hours of lectures, 1 section), (15 hours of lectures, 1 section)

▷ Lecturer in "Mobile Internet", for second-year students, computer engineering TRANSMEDIA and ES (Embedded Systems) tracks. ENIS (15 hours of lectures, 2 sections)

▷ Lecturer in "Architecture Description Languages" for third-year students, computer engineering, ASE (Advanced Software Engineering) and NCT (Network and Communication Techniques) tracks. ENIS (30 hours, 2 sections)

▷ Lecturer in "Software Maintenance" for third-year students, computer engineering, ASE track (Advanced Software Engineering). ENIS (22.5 hours of lectures, 1 section)

2016-2017
(304.5 hours)

▷ Lecturer in "Graph Algorithms" for first-year students, Research Master's. FSEGS (Faculty of Economics and Management of Sfax) (42 hours of lectures, 1 section)

▷ Lecturer in "Distributed Software Engineering" for second-year students, computer engineering, ASE (Advanced Software Engineering) and NCT (Network and Communication Techniques) tracks. ENIS (30 hours of lectures, 2 sections)

▷ Lecturer in "Real-time Systems and Scheduling" for second-year students, computer engineering ASE track (Advanced Software Engineering) and ES (Embedded Systems). ENIS (22.5 hours of lectures, 2 sections)

▷ Lecturer in "Mobile Internet", for second and third-year students, computer engineering. ENIS (22.5 hours of lectures, 4 sections)

▷ Lecturer in "Architecture Description Languages" for third-year students, computer engineering, ASE (Advanced Software Engineering) and NCT (Network and Communication Techniques) tracks. ENIS (22.5 hours, 2 sections)

▷ Lecturer in "Software Maintenance" for third-year students, computer engineering, ASE track (Advanced Software Engineering). ENIS (22.5 hours of lectures, 1 section)

2017-2018
(247.5 hours)

▷ Lecturer in "Python Programming and M2M" for second and third-year students, computer engineering. ENIS (22.5 hours, 8 sections)

▷ Lecturer in "Software Maintenance" for first and third-year students, computer engineering. ENIS (22.5 hours of lectures, 3 sections)

2018-2019
(225 hours)

▷ Lecturer in "Python Programming and M2M" for second-year students, computer engineering. ENIS (22.5 hours, 4 sections)

▷ Lecturer in "Software Maintenance" for first-year students, computer engineering. ENIS (22.5 hours, 4 sections)

▷ Lecturer in "Problem Solving and Advanced Programming" for third-year students, computer engineering. ENIS (30 hours, 1 section)

▷ Lecturer in "Advanced Programming in C++" for third-year students, computer engineering. ENIS (15 hours, 1 section)

2019-2020
(208 hours)

▷ Lecturer in "Python Programming and M2M" for second-year students, computer engineering. ENIS (26 hours, 4 sections)

▷ Lecturer in "Embedded LINUX" for second-year students, computer engineering. ENIS (26 hours, 4 sections)

2020-2021
(312 hours)

▷ Lecturer in "Python Programming and M2M" for second-year students, computer engineering. ENIS (26 hours, 4 sections)

▷ Lecturer in "Embedded LINUX" for second-year students, computer engineering. ENIS (26 hours, 4 sections)

▷ Lecturer in "Software Maintenance" for second-year students, computer engineering. ENIS (13 hours, 4 sections)

▷ Lecturer in "Graph Theory" for first-year students, computer engineering. ENIS (26 hours, 2 sections)

2021-2022
(208 hours)

▷ Lecturer in "Python Programming and M2M" for second-year students, computer engineering. ENIS (26 hours, 4 sections)

▷ Lecturer in "Embedded LINUX" for second-year students, computer engineering. ENIS (26 hours, 4 sections)

2022-2023
(208 hours)

▷ Lecturer in "Python Programming and M2M" for second-year students, computer engineering. ENIS (26 hours, 4 sections)

▷ Lecturer in "Embedded LINUX" for second-year students, computer engineering. ENIS (26 hours, 4 sections)

2023-2024
(208 hours)

▷ Lecturer in "Python Programming and M2M" for second-year students, computer engineering. ENIS (26 hours, 4 sections)

▷ Lecturer in "Embedded LINUX" for second-year students, computer engineering. ENIS (26 hours, 4 sections)

Supervision of Final Year Projects

▷ 2008-2009: Supervision of 6 students in engineering final year projects

▷ 2009-2010: Supervision of 4 students in engineering final year projects

▷ 2010-2011: Supervision of 6 students in engineering final year projects

▷ 2011-2012: Supervision of 6 students in engineering final year projects

▷ 2012-2013: Supervision of 5 students in engineering final year projects

- ▷ 2013-2014: Supervision of 4 students in engineering final year projects
- ▷ 2014-2015: Supervision of 2 students in engineering final year projects
- ▷ 2015-2016: Supervision of 2 students in engineering final year projects
- ▷ 2017-2018: Supervision of 3 students in engineering final year projects
- ▷ 2019-2020: Supervision of 1 student in an engineering final year project
- ▷ 2020-2021: Supervision of 5 students in engineering final year projects
- ▷ **TOTAL: 44 students supervised in engineering final year projects**

Administrative Activities

- ▷ Acting Director of the **Department of Computer Engineering and Applied Mathematics** at **ENIS** for one month (2014-2015)
- ▷ Member, as coordinator of the *Advanced Software Engineering* option, of the committee that developed the **reform of the study plan** for the Computer Engineering curriculum at **ENIS** in preparation for **accreditation** of this program (2016-2017)
- ▷ Responsible for managing the timetables at the **Department of Computer Engineering and Applied Mathematics** of **ENIS** (2014-present)
- ▷ Coordinator of final year projects (**PFE**) for Computer Engineering students at **ENIS** (2013-2020)
- ▷ Coordinator of the **ASE** (*Advanced Software Engineering*) option in the **CE** (Computer Engineering) curriculum at **ENIS** (2011-2017)
- ▷ Coordinator of the **DSE** (*Distributed Systems Engineering*) track in the **CE** (Computer Engineering) curriculum at **ENIS** (2009-2011)
- ▷ Member of the research laboratory council **ReDCAD** (2013-present)
- ▷ Administrator of the **Google Apps** Platform for **ENIS** (2015-2017)
- ▷ Administrator of the **Google Apps** Platform for **ReDCAD** (2014-present)
- ▷ Responsible for drafting the progress reports of the **ReDCAD** laboratory (2009-2017)

Development Activities

- ▷ Developer of a simplified graphical library in **C** (`https://github.com/BechirZalila/libsimplified_graphics`) to enhance engagement and understanding among students learning programming in this language.
- ▷ Designer and implementer of an environmental monitoring system for the **Celavie** project, using **Raspberry Pi** technology and **ThingsBoard**.

Scientific Research Activities

Research Projects

- ▷ **Coordinator** of the Young Researchers Encouragement Program project (**21PEJC D3P8**): *"Development of a secure smart greenhouse"*, 2022-2024

- ▷ **Member** of the research project team **DAAD**: *"AirFit: Air Quality Analytics for Personalized Health Recommendations"*, 2023-2025

- ▷ **Member** of the research project team **DAAD**: *"OLIVIA: Intelligent Data Analytics for Optimizing Water Supply of Olive Trees"*, 2020-2022

- ▷ **Member** of the Young Researchers Encouragement Program project team (**21PEJC D3P3**): *"A Blockchain-based Secure Telemedicine IoT Platform"*, 2022-2024

- ▷ **Member** of the Young Researchers Encouragement Program project team (**19PEJC 09-12**): *"Smart Agriculture based on Green Energy (SmartAGE)"*, 2019-2021

Organization of Scientific Events

- ▷ Member of the Organizing Committee of the 17th International Conference on Internet and Systems Risks and Security, CRiSIS'2022

- ▷ Member of the Organizing Committee of the 16th National Symposium on Methods for Adaptive Distributed Software, METHODICA-2022

- ▷ Member of the Organizing Committee of the 1st Tunisian-Algerian Conference TACC'2021

- ▷ Member of the Organizing Committee of the 11th National Symposium on Methods for Adaptive Distributed Software, METHODICA-I-2014

- ▷ Member of the Organizing Committee of the 22nd IEEE International Conference WETICE'2013

- ▷ Member of the Organizing Committee of the 10th National Symposium on Methods for Adaptive Distributed Software, METHODICA-I-2013

- ▷ Member of the Organizing Committee of the 9th National Symposium on Methods for Adaptive Distributed Software, METHODICA-II-2012

- ▷ Member of the Organizing Committee of the 8th National Symposium on Methods for Adaptive Distributed Software, METHODICA-I-2012

- ▷ Member of the Organizing Committee of the 7th National Symposium on Methods for Adaptive Distributed Software, METHODICA-II-2011

- ▷ Member of the Organizing Committee of the 6th National Symposium on Methods for Adaptive Distributed Software, METHODICA-I-2011

- ▷ Member of the Organizing Committee of the 5th Francophone Conference on Software Architectures, CAL'2011

- ▷ Member of the Organizing Committee of the 10th International Conference on New Technologies of Distribution, NOTERE'2010

- ▷ Member of the Organizing Committee of the 5th National Symposium on Methods for Adaptive Distributed Software, METHODICA-II-2009

- ▷ Publicity Chair for the following conferences: NOTERE'2010, RSP'2010, RSP'2009

Scientific Activities

- ▷ Member of the Program Committee of the 3rd Tunisian-Algerian Conference TACC'2023

- ▷ Member of the Program Committee of the 2nd Workshop on Architecture Centric Virtual Integration (ACVI15)

- ▷ Member of the Program Committee of the 13th International Conference on Software Engineering Research, Management and Applications (SERA'2015)

▷ Member of the Program Committee of the 12th International Conference on Software Engineering Research, Management and Applications (SERA'2014)

▷ Member of the Program Committee of the Francophone Conference on Software Architectures (CAL'2014)

▷ Member of the Program Committee of the 19th IEEE International Conference on Engineering of Complex Computer Systems (ICECCS'2014)

▷ Member of the Program Committee of the 1st Workshop on Architecture Centric Virtual Integration (ACVI14)

▷ Member of the Program Committee of the 18th IEEE International Conference on Engineering of Complex Computer Systems (ICECCS'2013)

▷ Member of the Program Committee of the 17th IEEE International Conference on Engineering of Complex Computer Systems (ICECCS'2012)

▷ Reviewer for the 16th IEEE International High-Level Design Validation and Test Workshop (HLDVT'2011)

▷ Member of the Program Committee for the international symposium "Distributed Architecture modeling for Novel Component based Embedded systems" (DANCE'2011)

▷ Member of the Program Committee for the international workshop "Self-Healing Process Aware Information Systems" (SH-PAIS'2011)

▷ Reviewer for the "International Journal of Concurrency and Computation" (IJCC'2011)

▷ Reviewer for the "ACM Transactions on Design Automation of Electronic Systems" (TODAES'2010)

▷ Member of the Program Committee of the 22nd IEEE International Symposium on Rapid System Prototyping (RSP'2011)

▷ Member of the Program Committee of the 6th IEEE International Workshop UML & AADL (UML&AADL'2011)

▷ Member of the Program Committee of the 21st IEEE International Symposium on Rapid System Prototyping (RSP'2010)

▷ Member of the Program Committee of the 20th IEEE International Symposium on Rapid System Prototyping (RSP'09)

▷ External Reviewer for the following conferences and symposiums: CAL'2010, DANCE'2010, ECSA'2010, NOTERE'2010, OPODIS'2010, CAL'2012, MVDA'2012

Associative Activities

▷ Founding member and secretary of the ACM-Tunisia association for the year 2012-2014

▷ Secretary of the Tunisian Chapter of ACM for the year 2011-2012

▷ President of the Tunisian Chapter of ACM for the year 2010-2011

Insight into Student Life

▷ Member of the selection jury for the best projects during the 2nd Olivia'2022 competition organized by IEEE ENIS Student Branch as part of the Olivia research project.

Certifications

Certified LPIC-1	ID: **LPI000250522**, Verification code: **n8u5uqd4np**, Verification URL: **https://cs.lpi.org/caf/Xamman/certification**
Certified Novell	Novell Certified Linux Administrator
Certified Novell	Data Center Technical Specialist
Coursera Cryptography I	Online course accomplishment *with distinction, (score 100%)* : **https://www.coursera.org/course/crypto**
Coursera Algorithms: Design and Analysis, Part 1	Online course accomplishment *(score 98%)* : **https://www.coursera.org/course/algo**
Coursera Algorithms: Design and Analysis, Part 2	Online course accomplishment *(score 93.6%)* : **https://www.coursera.org/course/algo2**
Coursera Machine Learning	Online course accomplishment *(score 100%)* : **https://www.coursera.org/account/accomplishments/records/X5XKNCD89GN6**
FUN Fundamentals for Big Data	Online course accomplishment *(score 91%)* : **https://www.fun-mooc.fr/courses/MinesTelecom/04006S04/session04/info**
FUN Python: From Fundamentals to Using the Language	Online course accomplishment *(score 100%)* : **https://www.fun-mooc.fr/courses/inria/41001S03/session03/info**
FUN Introduction to Functional Programming in OCaml	Online course accomplishment *(score 100%)* : **https://www.fun-mooc.fr/courses/parisdiderot/56002S02/session02/info**
Coursera Introduction to Programming (in C++)	Online course accomplishment *(score 99.7%)* : **https://www.coursera.org/learn/initiation-programmation-cpp**
Coursera Introduction to Object-Oriented Programming (in C++)	Online course accomplishment *(score 100%)* : **https://www.coursera.org/learn/programmation-orientee-objet-cpp**
Coursera FPGA Design for Embedded Systems	Online course accomplishment *(score 94%)* : **http://www.coursera.org/learn/intro-fpga-design-embedded-systems** **http://www.coursera.org/learn/fpga-hardware-description-languages** **http://www.coursera.org/learn/fpga-softcore-proccessors-ip** **https://www.coursera.org/account/accomplishments/records/E2LLRWSP68DH** **https://www.coursera.org/account/accomplishments/records/YXW5CZ3CJMY5** **https://www.coursera.org/account/accomplishments/records/5U7GSY5ML8SJ**

Skills

Computer Science

▷ Foundations of software development in multiple languages including Ada, Python, C, C++, JAVA...

▷ GNU/Linux, Embedded GNU/Linux, AOSP

▷ STM32 programming

▷ System programming under GNU/Linux

▷ System programming under Android

▷ Design of embedded systems (FPGAs)

▷ Real-time programming (Ada), embedded programming (Ada, C), distributed programming (CORBA)

▷ Parallel programming (Nvidia CUDA)

▷ Functional programming (OCaml and Haskell)

▷ Cryptography, fundamentals of computer security

▷ Computer systems architectures and modeling

▷ Theory of languages and compilation

▷ Software maintenance (Make, Autotools, CMake, SVN, GIT, GDB)

▷ Synchronous languages (LUSTRE, ESTEREL)

▷ Advanced distributed algorithms

▷ Model verification (Model Checking)

▷ Robotics: basic concepts

Systems

▷ GNU/LINUX, AOSP

▷ MACOS X

▷ MS Windows

Languages

Arabic   Native speaker

French   Bilingual

English   Bilingual. TOEFL obtained in June 2004, score: 617 (admission threshold: 550)

German   Beginner

Publications

Peer-Reviewed Journal Articles

[1] Tarek Frikha, Jalel Ktari, **Bechir Zalila**, Oussama Ghorbel, and Nader Ben Amor. "Integrating Blockchain and Deep Learning for Intelligent Greenhouse Control and Traceability". In: *Alexandria Engineering Journal* 79 (2023). Ranked **Q1** on **Scopus** and **SJR. IF=6.8 (Web of Science)**, pp. 259–273. ISSN: 1110-0168.
DOI: **https://doi.org/10.1016/j.aej.2023.08.027**.

[2] Wafa Gabsi, **Bechir Zalila**, and Mohamed Jmaiel. "Extension and Adaptation of an Aspect Oriented Programming Language for Real-time Systems". In: *International Journal of Business and Systems Research* 14.2 (2020). Ranked **Q3** on **Scopus** and **SJR**, pp. 139–161.
DOI: **https://dx.doi.org/10.1504/IJBSR.2020.106274**.

[3] Hana Mkaouar, **Bechir Zalila**, Jérôme Hugues, and Mohamed Jmaiel. "Towards a Formal Specification for an AADL Behavioural Subset Using the LNT Language". In: *International Journal of Business and Systems Research* 14.2 (2020). Ranked **Q3** on **Scopus** and **SJR**, pp. 162–190.
DOI: **https://dx.doi.org/10.1504/IJBSR.2020.106278**.

[4] Hana Mkaouar, **Bechir Zalila**, Jérôme Hugues, and Mohamed Jmaiel. "A formal approach to AADL model-based software engineering". In: *International Journal on Software Tools for Technology Transfer* 22.2 (2020). Ranked **Q1** on **Scopus** and **Q2** on **SJR. IF=0.739 (Web of Science)**, pp. 219–247.
DOI: **https://doi.org/10.1007/s10009-019-00513-7**.

[5] Rahma Bouaziz, Laurent Lemarchand, Frank Singhoff, **Bechir Zalila**, and Mohamed Jmaiel. "Multi-objective design exploration approach for Ravenscar real-time systems". In: *Real-Time Systems* 54.2 (2018). Ranked **Q1** on **Scopus** and **Q2** on **SJR. IF=1.717 (Web of Science)**, pp. 424–483.
DOI: **https://doi.org/10.1007/s11241-018-9299-6**.

[6] Wafa Gabsi, **Bechir Zalila**, and Jérôme Hugues. "A development process for the design, implementation and code generation of fault tolerant reconfigurable real time systems". In: *International Journal of Autonomous and Adaptive Communications Systems* 9.3/4 (2016). Ranked **Q3** on **Scopus** and **Q4** on **SJR. IF=0.4 (Web of Science)**, pp. 269–287.
DOI: **http://dx.doi.org/10.1504/IJAACS.2016.079625**.

[7] Fatma Krichen, Brahim Hamid, **Bechir Zalila**, Mohamed Jmaiel, and Bernard Coulette. "Development of reconfigurable distributed embedded systems with a model-driven approach". In: *Concurrency and Computation: Practice and Experience* 27.6 (2015). Ranked **Q2** on **Scopus** and **SJR. IF=0.942 (Web of Science)**, pp. 1391–1411.
DOI: **http://dx.doi.org/10.1002/cpe.3095**.

[8] Sihem Loukil, Slim Kallel, **Bechir Zalila**, and Mohamed Jmaiel. "AO4AADL: Aspect oriented extension for AADL". In: *Open Computer Science* 3.2 (2013). Ranked **Q2** on **Scopus** and **SJR. IF=1.5 (Web of Science)**, pp. 43–68.
DOI: **http://dx.doi.org/10.2478/s13537-013-0105-1**.

[9] Jérôme Hugues, **Bechir Zalila**, Laurent Pautet, and Fabrice Kordon. "From the Prototype to the Final Embedded System Using the Ocarina AADL Tool Suite". In: *ACM Transactions in Embedded Computing Systems (TECS)* 7.4 (2008), pp. 1–25.
DOI: **http://doi.acm.org/10.1145/1376804.1376810**.

[10] Irfan Hamid, **Bechir Zalila**, Elie Najm, and Jérôme Hugues. "Automatic Framework Generation for Hard Real-time Applications". In: *Innovations in Systems and Software Engineering: A NASA Journal* 4.1 (2008), pp. 107–122.
DOI: **http://dx.doi.org/10.1007/s11334-008-0044-5**.

[11] **Bechir Zalila**, Jérôme Hugues, and Laurent Pautet. "An Improved IDL Compiler for Optimizing CORBA Applications". In: *ACM SIGAda Ada Letters* XXVI.3 (2006). **Best student paper award**, pp. 21–27.
DOI: **http://doi.acm.org/10.1145/1185875.1185647**.

Conference with Proceedings Articles

[1] Souha Ben Hamouda, Wafa Gabsi, and **Bechir Zalila**. "Towards Bidirectional Conversion between Arabic Sign Language and Speech/Text". In: *Proceedings of the Tunisian-Algerian Joint Conference on Applied Computing (TACC 2023), Sousse, Tunisia, nov 6-8, 2023*. CEUR Workshop Proceedings. https://ceur-ws.org/Vol-3642/paper18.pdf. 2023, pp. 207–219.

[2] Afef Mdhaffar, **Bechir Zalila**, Racem Moalla, Ayoub Kharrat, Omar Rebai, Mohamed Melek Hsairi, Ahmed Sallemi, Hsouna Kobbi, Amel Kolsi, Dorsaf Chatti, Mohamed Jmaiel, and Bernd Freisleben. "A Smart Trap for Counting Olive Moths Based on the Internet of Things and Deep Learning". In: *2022 IEEE/ACS 19th International Conference on Computer Systems and Applications (AICCSA)*. Ranked **C** on **CORE**. 2023, pp. 1–8.
DOI: **http://dx.doi.org/10.1109/AICCSA56895.2022.10017905**.

[3] Hana Mkaouar, **Bechir Zalila**, Jérôme Hugues, and Mohamed Jmaiel. "An ocarina extension for AADL formal semantics generation". In: *33rd Annual ACM Symposium on Applied Computing (SAC)*. Ranked **B** on **CORE**. Pau, France: ACM, April 2018, pp. 1402–1409.
DOI: **https://dx.doi.org/10.1145/3167132.3167282**.

[4] Wafa Gabsi, **Bechir Zalila**, and Mohamed Jmaiel. "Development of a parser for the AADL error model annex". In: *16th IEEE/ACIS International Conference on Computer and Information Science (ICIS)*. Ranked **C** on **CORE**. IEEE, May 2017, pp. 233–238.
DOI: **https://dx.doi.org/10.1109/ICIS.2017.7959999**.

[5] Rahma Bouaziz, Laurent Lemarchand, Frank Singhoff, **Bechir Zalila**, and Mohamed Jmaiel. "Efficient Parallel Multi-Objective Optimization for Real-time Systems Software Design Exploration". In: *27th International Symposium on Rapid System Prototyping (RSP)*. Ranked **C** on **CORE**. Pittsburgh, United States: ACM, October 2016, pp. 58–64.
DOI: **https://doi.org/10.1145/2990299.2990310**.

[6] Wafa Gabsi, **Bechir Zalila**, and Mohamed Jmaiel. "AspectAda: An aspect oriented extension of ada for real-time systems". In: *15th IEEE/ACIS International Conference on Computer and Information Science (ICIS)*. Ranked **C** on **CORE**. Okayama, Japan: IEEE, June 2016, pp. 1–6.
DOI: **https://dx.doi.org/10.1109/ICIS.2016.7550825**.

[7] Wafa Gabsi, **Bechir Zalila**, and Mohamed Jmaiel. "Extension of the Ocarina Tool Suite to Support Reliable Replication-Based Fault-Tolerance". In: *21st Ada-Europe International Conference on Reliable Software Technologies (Ada-Europe)*. Vol. 9695. Lecture Notes in Computer Science. Ranked **A** on **CORE**. Pisa, Italy: Springer, May 2016, pp. 129–144.
DOI: **https://dx.doi.org/10.1007/978-3-319-39083-3_9**.

[8] Wafa Gabsi, **Bechir Zalila**, and Mohamed Jmaiel. "EMA2AOP: From the AADL Error Model Annex to aspect language towards fault tolerant systems". In: *14th IEEE International Conference on Software Engineering Research, Management and Applications (SERA)*. Ranked **C** on **CORE**. Towson, MD, USA: IEEE, June 2016, pp. 155–162.
DOI: **https://dx.doi.org/10.1109/SERA.2016.7516141**.

[9] Rahma Bouaziz, Laurent Lemarchand, Frank Singhoff, **Bechir Zalila**, and Mohamed Jmaiel. "Architecture Exploration of Real-time Systems Based on Multi-Objective Optimization". In: *20th International Conference on Engineering of Complex Computer Systems (ICECCS)*. Ranked **A** on **CORE**. Golden Coast, Australia: IEEE, December 2015, pp. 1–10.
DOI: **https://dx.doi.org/10.1109/ICECCS.2015.11**.

[10] Hana Mkaouar, **Bechir Zalila**, Jérôme Hugues, and Mohamed Jmaiel. "From AADL Model to LNT Specification". In: *20th International Conference on Reliable Software Technologies (Ada-Europe)*. Vol. 9111. Lecture Notes in Computer Science. Ranked **A** on **CORE**. Springer, June 2015, pp. 146–161.
DOI: **https://dx.doi.org/10.1007/978-3-319-19584-1_10**.

[11] Wafa Gabsi, Rahma Bouaziz, and **Bechir Zalila**. "Towards an Aspect Oriented Language Compliant with Real Time Constraints". In: *22nd IEEE International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE), Third Track on Adaptive and Reconfigurable Service-oriented and Component-based Applications and Architectures (AROSA)*. Ranked **B** on **CORE**. Hammamet, Tunisia: IEEE Computer Society, June 2013, pp. 68–73.
DOI: **https://dx.doi.org/10.1109/WETICE.2013.65**.

[12] Wafa Gabsi and **<u>Bechir Zalila</u>**. "Fault Tolerance for Distributed Real Time Dynamically Reconfigurable Systems from Modeling to Implementation". In: *22nd IEEE International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE), Third Track on Adaptive and Reconfigurable Service-oriented and Component-based Applications and Architectures (AROSA)*. Ranked **B** on **CORE**. Hammamet, Tunisia: IEEE Computer Society, June 2013, pp. 98–103.
DOI: **https://dx.doi.org/10.1109/WETICE.2013.41**.

[13] Fatma Krichen, Amal Gassara, **<u>Bechir Zalila</u>**, and Mohamed Jmaiel. "Towards a Verification Approach for Reconfigurable Embedded Systems". In: *IEEE Symposium on Computers and Communications (ISCC)*. Ranked **B** on **CORE**. Cappadocia, Turkey: IEEE Computer Society, July 2012, pp. 750–752.
DOI: **https://dx.doi.org/10.1109/ISCC.2012.6249388**.

[14] Fatma Krichen, Amal Ghorbel, Brahim Hamid, and **<u>Bechir Zalila</u>**. "An MDE-Based Approach for Reconfigurable Embedded Systems". In: *21st IEEE International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE), 2nd track on Adaptive and Reconfigurable Service-oriented and Component-based Applications and Architectures (AROSA)*. Ranked **B** on **CORE**. Toulouse, France: IEEE Computer Society, June 2012, pp. 78–83.
DOI: **https://dx.doi.org/10.1109/WETICE.2012.57**.

[15] Fatma Krichen, Brahim Hamid, **<u>Bechir Zalila</u>**, and Mohamed Jmaiel. "Design-Time Verification of Reconfigurable Real-time Embedded Systems". In: *14th International Conference on High Performance Computing and Communication, 9th International Conference on Embedded Software and Systems (HPCC-ICESS)*. Ranked **B** on **CORE**. Liverpool, United Kingdom: IEEE, June 2012, pp. 1487–1494.
DOI: **https://dx.doi.org/10.1109/HPCC.2012.217**.

[16] Fatma Krichen, **<u>Bechir Zalila</u>**, Mohamed Jmaiel, and Brahim Hamid. "A Middleware for Reconfigurable Distributed Real-Time Embedded Systems". In: *10th International Conference on Software Engineering Research, Management and Applications (SERA)*. Vol. 430. Studies in Computational Intelligence. Ranked **C** on **CORE**. Springer, June 2012, pp. 81–96.
DOI: **https://dx.doi.org/10.1007/978-3-642-30460-6_6**.

[17] Fatma Krichen, Amal Gassara, **<u>Bechir Zalila</u>**, Brahim Hamid, and Mohamed Jmaiel. "Modélisation et vérification des systèmes embarqués temps réel reconfigurables". In: *6ème Conférence Internationale Francophone sur les Architectures Logicielles*. Montpellier, France, May 2012, pp. 1–8.

[18] Fatma Krichen, Brahim Hamid, **<u>Bechir Zalila</u>**, and Mohamed Jmaiel. "Towards a Model-Based Approach for Reconfigurable DRE Systems". In: *5th European Conference on Software Architecture (ECSA)*. Vol. 6903. Lecture Notes in Computer Science. Ranked **A** on **CORE**. Essen, Germany: Springer, September 2011, pp. 295–302.
DOI: **https://dx.doi.org/10.1007/978-3-642-23798-0_32**.

[19] Sihem Loukil, Slim Kallel, **<u>Bechir Zalila</u>**, and Mohamed Jmaiel. "Toward an Aspect Oriented ADL for Embedded Systems". In: *4th European Conference on Software Architecture (ECSA)*. Vol. 6285. Lecture Notes in Computer Science. Ranked **A** on **CORE**. Copenhagen, Denmark: Springer, August 2010, pp. 489–492.
DOI: **https://dx.doi.org/10.1007/978-3-642-15114-9_47**.

[20] Sihem Loukil, Slim Kallel, **<u>Bechir Zalila</u>**, and Mohamed Jmaiel. "AO4AADL: an Aspect Oriented ADL for Embedded Systems". In: *10th Annual International Conference on New Technologies of Distributed Systems (NOTERE), a Demonstration Paper*. Tozeur, Tunisia, May 2010.

[21] Fatma Krichen, Brahim Hamid, **<u>Bechir Zalila</u>**, and Bernard Coulette. "Designing Dynamic Reconfiguration for Distributed Real Time Embedded Systems". In: *10th Annual International Conference on New Technologies of Distributed Systems (NOTERE)*. Tozeur, Tunisia: IEEE, May 2010, pp. 249–254.
DOI: **https://dx.doi.org/10.1109/NOTERE.2010.5536671**.

[22] Gilles Lasnier, **<u>Bechir Zalila</u>**, Laurent Pautet, and Jérôme Hugues. "OCARINA: An Environment for AADL Models Analysis and Automatic Code Generation for High Integrity Applications". In: *14th Ada-Europe International Conference Reliable Software Technologies (Ada-Europe)*. Vol. 5570. Lecture Notes in Computer Science. Ranked **A** on **CORE**. Brest, France: Springer, June 2009, pp. 237–250.
DOI: **https://dx.doi.org/10.1007/978-3-642-01924-1_17**.

[23] **Bechir Zalila**, Laurent Pautet, and Jérôme Hugues. "Towards Automatic Middleware Generation". In: *11th International Symposium on Object-oriented Real-time distributed Computing (ISORC)*. Ranked **C** on **CORE**. Orlando, Florida, USA: IEEE, May 2008, pp. 221–228. DOI: **https://dx.doi.org/10.1109/ISORC.2008.27**.

[24] Jérôme Hugues, Laurent Pautet, and **Bechir Zalila**. "From MDD to Full Industrial Process: Building Distributed Real-Time Embedded Systems for the High-Integrity Domain". In: *13th Monterey Workshop on Composition of Embedded Systems*. Vol. Lecture Notes in Computer Science. 4888. Paris, France: Springer, January 2008, pp. 35–52. DOI: **https://dx.doi.org/10.1007/978-3-540-77419-8_3**.

[25] Julien Delange, Jérôme Hugues, Laurent Pautet, and **Bechir Zalila**. "Code Generation Strategies from AADL Architectural Descriptions Targeting the High Integrity Domain". In: *4th European Congress on Embedded Real Time Soft-ware and Systems (ERTS)*. Toulouse, France, January 2008.

[26] Jérôme Hugues, Laurent Pautet, **Bechir Zalila**, Pierre Dissaux, and Maxime Perrotin. "Using AADL to build critical real-time systems:Experiments in the IST-ASSERT project". In: *4th European Congress on Embedded Real Time Soft-ware and Systems (ERTS)*. Toulouse, France, January 2008.

[27] **Bechir Zalila**, Irfan Hamid, Jérôme Hugues, and Laurent Pautet. "Generating Distributed High Integrity Applications from their Architectural Description". In: *12th International Conference on Reliable Software Technologies (Ada-Europe)*. Vol. Lecture Notes in Computer Science. 4498. Ranked **A** on **CORE**. Geneva, Switzerland: Springer, June 2007, pp. 155–167. DOI: **https://dx.doi.org/10.1007/978-3-540-73230-3_12**.

[28] Jérôme Hugues, **Bechir Zalila**, and Laurent Pautet. "Combining Model processing and Middleware Configuration for Building Distributed High-Integrity Systems". In: *10th IEEE International Symposium on Object-oriented Real-time distributed Computing (ISORC)*. Ranked **C** on **CORE**. Santorini Island, Greece: IEEE, May 2007, pp. 307–312. DOI: **https://dx.doi.org/10.1109/ISORC.2007.23**.

[29] Jérôme Hugues, **Bechir Zalila**, Laurent Pautet, and Fabrice Kordon. "Rapid Prototyping of Distributed Real-Time Embedded Systems Using the AADL and Ocarina". In: *18th IEEE/IFIP International Workshop on Rapid System Prototyping (RSP)*. Ranked **C** on **CORE**. Porto Allegre, Brazil: IEEE, May 2007, pp. 106–112. DOI: **https://dx.doi.org/10.1109/RSP.2007.33**.

[30] Irfan Hamid, **Bechir Zalila**, Elie Najm, and Jérôme Hugues. "A Generative Approach to Building a Framework for Hard Real-Time Applications". In: *31st Annual NASA Goddard Software Engineering Workshop*. Ranked **C** on **CORE**. Baltimore, USA: IEEE, March 2007, pp. 269–278. DOI: **https://dx.doi.org/10.1109/SEW.2007.83**.

[31] Jérôme Hugues, **Bechir Zalila**, and Laurent Pautet. "Middleware and Tool suite for High Integrity Systems". In: *Work-in-Progress session of the Real-Time Systems Symposium (RTSS-WiP)*. Ranked **A*** on **CORE**. Rio de Janeiro, Brazil, December 2006, pp. 1–4.

Book Chapters

[1] Wafa Gabsi and **Bechir Zalila**. "Towards a Model Level Replication Technique for Fault Tolerant Systems Using AADL". English. In: *Software Engineering, Artificial Intelligence, Networking and Paral/Distributed Computing 2015*. Ed. by Roger Lee. Vol. 612. Studies in Computational Intelligence. Springer International Publishing, 2016, pp. 159–175. ISBN: 978-3-319-23508-0. DOI: **http://dx.doi.org/10.1007/978-3-319-23509-7_12**.

[2] Laurent Pautet and **Bechir Zalila**. "Modélisation et analyse de systèmes embarqués". In: *Modélisation et analyse de systèmes embarqués*. Ed. by Fabrice Kordon, Jérôme Hugues, Agusti Canals, and Alain Dohet. Hermes Science, 2013. Chap. Génération de code à partir du modèle. ISBN: 9782746239005.

[3] Laurent Pautet and **Bechir Zalila**. "Embedded Systems: Analysis and Modeling with SysML, UML and AADL". In: *Embedded Systems: Analysis and Modeling with SysML, UML and AADL*. Ed. by Fabrice Kordon, Jérôme Hugues, Agusti Canals, and Alain Dohet. Wiley-ISTE, 2013. Chap. Model-Based Code Generation. ISBN: 9781848215009.

Books (Scientific and Educational Works)

[1] **Bechir Zalila**. *Théorie des Graphes*. `https://www.morebooks.shop/shop-ui/shop/product/9786203450118` and `https://www.amazon.fr/Théorie-Graphes-Cours-Activités-Pratiques/dp/6203450111/`. Europe: Éditions Universitaires Européennes, 2023. ISBN: 978-620-3-45011-8.

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