

CURRICULUM VITAE

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|-------------------------------|--|
| 1. Family Name: | BUNJAKU |
| 2. First Name: | Drilon |
| 3. Nationality: | Albanian, Kosovo |
| 4. Date of Birth | 08.07.1988 |
| 5. Gender: | M |
| 6. Contact details: | |
| <i>Email:</i> | drilon.bunjaku@uni-pr.edu , bunjaku.drilon@gmail.com |
| <i>Tel:</i> | 00 383 49 627-315 |
| <i>Update date:</i> | 26.01.2020 |
| | |
| 7. Education Degree: | |
| <i>Institution:</i> | University "Ss. Cyril and Methodij"- Faculty of Electrical Engineering and Information Technologies, Skopje |
| | 05.06.2019 |
| <i>Field:</i> | Automation, Robotics and System Engineering |
| <i>Title of dissertation:</i> | Development of new algorithms for finding optimal controllers for descriptor systems, and application to quadcopter stabilization and tracking. |
| <i>Diploma / PhD:</i> | Doctor of Technical Science from the field of Electrotechnics and Information Technologies. (nost. dt. 12.09.2019 nr. 6/4-2321) |
| | |
| <i>Institution:</i> | University of Prishtina, Faculty of Electrical and Computer Engineering and Faculty of Mechanical Engineering, Prishtina (Joined study program, financed by WUS Austria) |
| <i>Degree Date:</i> | 28.03.2012 |
| <i>Field:</i> | Mechatronics (studies held in English language) |
| <i>Diploma / Master :</i> | Master of Technical Science |
| | |
| <i>Institution:</i> | University of Prishtina, Faculty of Electrical and Computer Engineering, Prishtina |
| <i>Degree Date:</i> | 01.12.2009 |
| <i>Degree :</i> | Bachelor of Electrical Engineering - Telecommunication |
| | |
| 8. Academic Degree: | Full time Teaching and Research Assistant |
| <i>Institution:</i> | University of Prishtina "Hasan Prishtina", FIEK |
| <i>Degree Date:</i> | 11.09.2018 |
| | |
| 8.1 Academic Degree: | Full time Teaching and Research Assistant |
| <i>Institution:</i> | University of Mitrovica "Isa Boletini", FIMK |
| <i>Degree Date:</i> | 01.10.2016 |
| | |
| 8.2 Academic Degree: | Full time Teaching and Research Assistant |
| <i>Institution:</i> | University of Prishtina, FSHTA- Mitrovica |
| <i>Degree Date:</i> | 25.09.2013 |
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| 8.3 Academic Degree: | Part time Teaching Assistant |
| <i>Institution:</i> | University of Prishtina, FSHTA- Mitrovica |
| <i>Degree Date:</i> | 2010-11 |
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10. Scientific Publications:

Scientific journals (* specifies the corresponding author of the paper)

| Nr | Name of authors / Title of the paper | Journal name | Year / Volume / Pages |
|-----|---|---|--|
| [4] | Drilon Bunjaku* , Jovan Stefanovski, Georgi Dimirovski; | | |
| | STABILITY OF NONLINEAR DESCRIPTOR SYSTEMS AND APPLICATION TO STABILIZATION OF QUADCOPTERS | Acta Polytechnica Hungarica – Journal of Applied Science (ISSN: 1785-8860) https://www.uni-obuda.hu/journal/ Indexed in Thomson R. IF: 1.29 (2018) | In reviewing process from 31.12.2018 (round 2) |
| [3] | Drilon Bunjaku* , Jovan Stefanovski, Georgi Dimirovski; | | |
| | NEW APPROACH ON SOLVING CONTROL PROBLEMS WITH DESCRIPTOR SYSTEMS | Journal of the Franklin Institute (ISBN 0016-0032) https://www.sciencedirect.com/science/article/abs/pii/S0016003219301048 Indexed in Thomson R. IF: 3.65 (2018) | 2019 / Vol. 356(6) / pp. 3270 - 3289. |
| [2] | Drilon Bunjaku* , Gorjan Nadzinski, Mile Stankovski, Jovan Stefanovski; | | |
| | DYNAMIC MODELING AND FLIGHT CONTROL DESIGN FOR MULTICOPTER | International Review of Aerospace Engineering (IREASE) (ISSN 1973-7459) https://bit.ly/2nsguX7 Indexed in SCOPUS - SJR 1.27 (2018) | 2018 / Vol. 11(5) / pp. 224-235. |
| [1] | Drilon Bunjaku* , Jovan Stefanovski, Mile Stankovski; | | |
| | DYNAMIC MODELLING AND ASYMPTOTIC POINT STABILIZATION CONTROL OF TWO DIFFERENTIAL WHEELED MOBILE ROBOT | Journal of Electrical Engineering and Information Technologies – JEEIT (ISSN 2545 – 4269) http://jeeit.feit.ukim.edu.mk/index.php/jeeit/article/view/116 | 2016 / Vol. 1(1-2) / pp. 25-35. |

List of International and National Scientific Conferences

| Nr | Name of authors / Title of the paper | Conference name | Year / Place / Pages |
|------|---|--|--|
| [10] | Drilon Bunjaku , Gorjan Nadzinski, Mile Stankovski, Jovan Stefanovski; | | |
| | The Dynamic Modeling and Cascade Control Design for Quadrotors | XIV International Conference ETAI 2018 | 22-24 Sep. 2018 , Struga, R. Macedonia |
| [9] | Drilon Bunjaku , Jovan Stefanovski, Georgi M. Dimirovski; | | |
| | Regularity conditions for control problem with descriptor systems | The 14th IEEE International Conference on Control and Automation (IEEE ICCA 2018) https://bit.ly/2mFf199 Indexed in SCOPUS | 12-15 June, 2018 , Anchorage, Alaska, USA (pp 130-135). |

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|-----|--|--|---|
| [8] | Drilon Bunjaku, Mile Stankovski; | | |
| | The System Identification in Industrial Control: Case Study on the Differential Wheeled Mobile Robot | The 13th IEEE International Conference on Control and Automation (IEEE ICCA 2017) https://ieeexplore.ieee.org/document/8003041/ Indexed in SCOPUS | 3-6 July 2017 , Ohrid, R. Macedonia, (page 94-99). |
| [7] | Drilon Bunjaku, Jovan Stefanovski, Georgi M. Dimirovski; | | |
| | Polynomial J-spectral factorization method for optimal control of discrete-time systems | 20th IFAC World Congress https://www.sciencedirect.com/science/article/pii/S2405896317319286 Indexed in SCOPUS | 9-14 July 2017 , Toulouse, France, (page 6099–6104). |
| [6] | Drilon Bunjaku, Jovan Stefanovski, Georgi M. Dimirovski; | | |
| | Optimal tracking and disturbance rejection with invariant zeros on the unit circle: a polynomial spectral factorization design | 20th IFAC World Congress https://www.sciencedirect.com/science/article/pii/S240589631730318X Indexed in SCOPUS | 9-14 July 2017 , Toulouse, France, (page 381-386). |
| [5] | Drilon Bunjaku, Jovan Stefanovski; | | |
| | Elimination of descriptor nature in standard descriptor system control structure | XII International Conference ETAI 2015 | 24-26 Sept. 2015 , Ohrid, R. Macedonia |
| [4] | Arbnor Pajaziti, Shaban Buza, Drilon Bunjaku; | | |
| | Development and Programming of the Mobile Platform with Manipulation Arm for Rescue Operations | The 12th International Symposium “MINE ACTION 2015” (ISSN 1849-3718) http://goo.gl/YOWL9t | 27-30 April 2015 , Biogra, Croatia, (page 159-163) |
| [3] | Shaban A. Buza, Kenan Hyseni, Besnik Gashi, Valon Gojani, Drilon Bunjaku; | | |
| | Design and Manufacture of a Prototype for UXO Detection | 10th International Symposium on Humanitarian Demining (HUDEM’ 2013) 11th IARP WS http://goo.gl/fUPF70 | 23-25 April 2013 , Sibenik, Croatia, (page 97-100) |
| [2] | Shaban A. Buza, Drilon Bunjaku; | | |
| | Reliability of the Remote Control System at a UXOs Detection Device | 16th International Research/Expert Conference “Trends in the Development of Machining and Associated Technology”, TMT http://tmt.unze.ba/zbornik/TMT2012/135-TMT12-033.pdf | 10-12 Sept. 2012 , Dubai, UAE (page 564-566) |
| [1] | Shaban A. Buza, Kenan Hyseni, Besnik Gashi, Valon Gojani, Drilon Bunjaku; | | |
| | From Design Concept to Prototype of a UXO Detection Device | 15th International Research/Expert Conference “Trends in the Development of Machining and Associated Technology”, TMT http://tmt.unze.ba/zbornik/TMT2011/110-TMT11-093.pdf | 12-18 Sept. 2011 , Prague, Czech Rep. (page 473-476) |
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| Report from international internship job | | | |
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| | Author/Authors | Name of the company/division | Year / Place |
| [1] | Drilon Bunjaku; | | |
| | Report from 6 months internship - Robert Bosch GmbH (GS-EH/EPP1) <i>Affiliation University of Prishtina</i> | Robert Bosch GmbH division of Gasoline Systems - Electric Vehicle and Hybrid Systems https://goo.gl/ieOQQF | 28 Sep. 2012 , Tamm, Stuttgart, Germany |
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| 11. Work experience: | | | |
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| | <i>Dates:</i> | 01.10.2018 - | |
| | <i>Location:</i> | Prishtina | |
| | <i>Name of the Institution:</i> | University of Prishtina, FIEK | |
| | <i>Position:</i> | Full time Teaching and Research assistant | |
| | <i>Description:</i> | Teaching assistant in the subjects: Winter Semester – Microprocessor and Microcontroller, Digital Control Systems, Signals and Systems, Smart Sensors. Summer Semester – Fundamentals of Robotics, Modeling and Simulation, Real Time Control, Fundamentals of Logic Circuits. | |
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| | <i>Dates:</i> | 01.10.2013 – 30.09.2018 | |
| | <i>Location:</i> | Mitrovica | |
| | <i>Name of the Institution:</i> | University of Prishtina, FSHTA (https://goo.gl/JJvOFm); University of Mitrovica, FIMK | |
| | <i>Position:</i> | Teaching Assistant, and engaged Lecturer named from the council of the Faculty FIMK | |
| | <i>Description:</i> | Teaching assistance in a group of subjects from Bachelor and Master studies, Department of Engineering Informatics <u>-Lecturing and teaching exercises from subject:</u> 2014-16: Database systems <u>-Teaching exercises from subjects:</u> 2013-14: Database structures, Computer Graphics. 2013-15: Internet, Computer Architecture & Organization, Computer Practicum, Advanced Computer Architecture, Software Engineering. 2013-16: Digital Signal Processing, Fundamental of Engineering Informatics 2013-18: Computer Circuits, Microprocessors & Microcomputer 2, Electronic Devices, Optical Fiber Communications, Fundamental of Electrical Engineering | |
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| <i>Dates:</i> | 01.06.2014 – 30.05.2015 |
| <i>Location:</i> | Mitrovica |
| <i>Name of the Institution:</i> | University of Mitrovica, Rectorate |
| <i>Position:</i> | Member of the Study commission |
| <i>Description:</i> | Represented FMCE at study commission in Rectorate. Evaluating reports of reviewer commissions for: – advancing the academic personnel with academic title, new academic employees, conform status of University, etc. |
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| <i>Dates:</i> | 01.10.2016 – 30.09.2018 |
| <i>Location:</i> | Mitrovica |
| <i>Name of the Institution:</i> | University of Mitrovica, FMCE |
| <i>Position:</i> | Member of the Faculty Council |
| <i>Description:</i> | Member with full rights |
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| <i>Dates:</i> | 2012 – 2013 |
| <i>Location:</i> | Prishtina |
| <i>Name of the Institution:</i> | American Hospital Kosova |
| <i>Position:</i> | Medical Engineer – Head of Technical Staff |
| <i>Description:</i> | <ul style="list-style-type: none"> – Control the efficiency and quality performance of medical devices – Troubleshooting and Servicing medical devices of the Hospital – Organize a monthly structure for service, calibration and replacement – Operating on teamwork, maintaining HVAC systems – Lead the technical staff for helping people's health |
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| <i>Dates:</i> | 01.04.2012 – 30.09.2012 |
| <i>Location:</i> | Tamm, Stuttgart, Germany |
| <i>Name of the Institution:</i> | Robert Bosch GmbH GS-EH |
| <i>Position:</i> | Internship work |
| <i>Description:</i> | <p>Electrical Vehicles and Hybrid Systems, Department: EPP1 (Electrical Power Platform)</p> <ul style="list-style-type: none"> – Learning about Electrical Vehicles and Hybrid Systems, analyzing the internal architecture of the system and their working modes, – Developing a circuit (solution) for automatic switching between different digital and analog rotor position sensors, – Analyzing data measurements with Matlab in Field Data Acquisition process, – Calibrating a display for measuring a temperature in the range (from -40°C to 150°C) – Developing a circuit for measuring temperature trough NTC (Negative Temperature coefficient) in power modules of inverters |
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| <i>Dates:</i> | 2010 - 2011 |
| <i>Location:</i> | Mitrovica |

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| <i>Name of the Institution:</i> | University of Prishtina, FSHTA; |
| <i>Position:</i> | Part time Teaching Assistant |
| <i>Description:</i> | Teaching Assistant in the subjects: Computer Circuits, Computer Architecture, Transmission Systems |
| | |
| <i>Dates:</i> | 2009 - 2010 |
| <i>Location:</i> | Prishtina |
| <i>Name of the Institution:</i> | Tellabs - 3CIS LLD (Carrier Class Consulting & Integration Services) |
| <i>Position:</i> | Network Engineer – Lead Engineer in market of Philadelphia and Virginia |
| <i>Description:</i> | Remotely online configuration of device Tellabs MSN 8860 <ul style="list-style-type: none"> – Online support of the at&t (client) remotely from Kosovo while configuring 3G mobile network in USA, together with other teams: ALU (Alcatel Lucent), Ericsson, Tellabs, testing call team, testing emergence call team 911 etc. – Increase the capacity of frequency bandwidth, implements the new technology on 3G mobile network, – Troubleshooting online technical problems through teleconferences (bridges) of at&t or ALU, – Training new employees for technology UMTS MSN 8860, etc. |
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| <i>Dates:</i> | 01.10.2008 – 30.02.2009 |
| <i>Location:</i> | Prishtina |
| <i>Name of the Institution:</i> | KWE (Kosovo Water Energy) - Engineering Execution & Supplies |
| <i>Position:</i> | Project Manager |
| <i>Description:</i> | <ul style="list-style-type: none"> – Project Manager in the field of BMS (Building Management System), HVAC (Heating Ventilation & Air Condition). – Training teams for the system of PSION Sensus Scout (system for reading remotely the water flow meters), etc. |
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| 12. Training and courses | |
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| <i>Date</i> | <i>Training</i> |
| 11.07.2019 – 12.07.2019 | Center for Excellence in Teaching – University of Prishtina Level: Planning and Implementation of Higher Education Teaching (<i>Certificated</i>) |
| 30.05.2019 – 01.06.2019 | Center for Excellence in Teaching – University of Prishtina Level: Teaching in Higher Education (<i>Certificated</i>) |
| 02.01.2018 – 06.02.2018 | Aerial Robotics from Prof. Vijay Kumar Four weeks online course of study offered by University of Pennsylvania, USA (<i>I Certifikuar</i>) |
| 15.02.2015 – 01.04.2015 | Introduction to Robotics (MOOC) by Prof. Peter Corke Six-week course of study offered by QUT Open Online Learning, an initiative of the Queensland University of Technology, Australia (<i>Certificated CRICOS No. 00213J</i>) |
| 09.11.2009 – 15.01.2010 | 3CIS LLD Training UMTS - 3G Mobile Network |

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| | Online configuring Utran & Core in device Tellabs MSN 8860 (Network engineer) | | |
| 21.11.2008 – 29.11.2008 | Training - Siemens (Vienna – Austria) Building Management System - Desigo Insight v2.37 XWORKS Engineering Software (Certificated) | | |
| 01.11.2002 – 15.07.2005 | Course from OXFORD Studio, Prishtina English language – level “Advanced” (Certificated) | | |
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| 13. Professional Projects: | | | |
| <i>Title of the project</i> | | <i>Place</i> | <i>Year</i> |
| The development of Brain-Machine interface for artificial hand (My task in the project: programming the artificial hand controller), financed by MASHT. | | University of Prishtina – Mechatronics Laboratory | 2016 |
| | | | |
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| 14. Mobility: | | | |
| <i>Nr</i> | <i>Type of mobility</i> | <i>Time period</i> | <i>Institution/ Place</i> |
| 1. | Two-month Academic visit for research purposes on the application of Singular systems in aerial vehicles (Drona) | 10.07.17 – 09.09.17 | NATIONAL UNIVERSITY OF SINGAPORE Faculty of Engineering - Electrical and Computer Engineering Department |
| 2. | Student Internship (6 months) in department <i>GS-EH “Gasoline System – Electric & Hybrid Vehicle”</i> | 01.04.12 – 30.09.12 | “Robert Bosch” GmbH – Tamm, Stuttgart, Germany |
| | | | |
| 15. Paper revisions: | | | |
| <i>Nr</i> | <i>Name of the Conference</i> | Title of the paper | |
| 1. | IEEE International Conference on Control and Automation | Time-delay Uncertainty and Robustness | |
| 2. | | | |
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| 16. Additional information: | | | |
| <i>Organizational skills and competences:</i> | | Organizing skills for cooperation on teamwork, independent work, building correct friendship work relations. | |
| <i>Computer skills and competences:</i> | | <ul style="list-style-type: none">– Development & research: Matlab, ROS, Roboplus, Multisim, SaberRD, Proteus ISIS 7 Professional, Eagle Layout– Graphics: Corel Draw, Adobe Photoshop, Blender– Simulation & modeling: Robotic ABB, Festo – Fluid Sim, XWORKS Engineering– Documentation: AutoCAD, Microsoft Office, Latex– Programming language and database: C++, Robot C, Visual Basic, Mysql, MS SQL Server,– Network configuration: CCNA. | |

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| | | – Hardware and embedded systems: Microcontroller and PLC, etc. | |
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| <i>Language skills: (1 to 5: 1 lowest - 5 fluent)</i> | | | |
| <i>Language.</i> | <i>Speaking</i> | <i>Writing</i> | <i>Reading</i> |
| English | 5 | 5 | 5 |
| German | 3 | 2 | 3 |
| | | | |
| <i>Awards, membership and student mobility:</i> | | | |
| | Scholarship from University of Prishtina 2007 | | |
| | Internship Robert Bosch GmbH, Gjermani 2012 | | |
| | IEEE member since 2013 | | |
| | Participant in the program “Work and travel USA” WAT – Massachusetts USA, during 2010 & 2011 | | |
| Researchgate | https://www.researchgate.net/profile/Drilon_Bunjaku | | |