



UNIVERSITY OF EVRY PARIS-SACLAY

RESUME  
OF ACADEMIC & SCIENTIFIC WORKS

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# Activity Report

## IBISC Laboratory EA4526

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Hichem ARIQUI

30 janvier 2024

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# 1

## Career summary

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### 1.1 Contact Information

Name	<b>Hichem ARIOUI</b>
Bonr on	February 10, 1976, Algeria
Marital status	Married, 03 children
Citizenship	French
Personal Address	22, rue de l'Orge, Evry, France
Cellular	+33614627405
Professional address	Informatique, BioInformatique, Systèmes Complexes <b>IBISC - EA 4526</b> <b>University of Evry Val d'Essonne (UEVE)</b> 40, rue du Pelvoux, CE1455, Courcouronnes 91020, Evry Cedex, France
Phone / Fax	+33169477564 / +33169477599
Email	<a href="mailto:hichem.arioui@univ-evry.fr">hichem.arioui@univ-evry.fr</a>
Website	<a href="http://www.ibisc.univ-evry.fr/~harioui/">www.ibisc.univ-evry.fr/~harioui/</a>
LinkedIn	<a href="http://www.linkedin.com/in/hichem-arioui-0955054b/">www.linkedin.com/in/hichem-arioui-0955054b/</a>



### 1.2 Academic Experience

Since Sept. 19	<b>Associate Professor - Senior rank (National promotion)</b> UFR Sciences & Technologies de l'UEVE
Since Dec. 10	<b>Associate Professor</b> , UFR Sciences & Technologies de l'UEVE
Sept. 03 - Nov. 10	<b>Assistant Professor - section 61 of the CNU</b> UFR Sciences & Technologies, UEVE
Sept. 16 - Aug. 18	Temporary Lecturer, IUT of Evry, QLIO Department
Sept. 06 - Aug. 15	Temporary Lecturer, ITIN, Engineering School, Cergy
Sept. 02 - Aug. 03	Temporary Lecturer, UFR Sciences & Technologies UFR Sciences & Technologies, UEVE
Sept. 99 - Aug. 02	Temporary Lecturer, UFR Sciences & Technologies UEVE
Sept. 01 - Aug. 02	Temporary Lecturer, ESIGETEL, Engineering School Vitry sur Seine
Sept. 00 - Aug. 01	Temporary Lecturer, EFREI, Engineering School Fontainebleau
Sept. 99 - Aug. 02	Temporary Lecturer, UFR Sciences & Technologies UEVE

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## 1.3 Education

- Dec. 2010**      **Accreditation to Supervise Research (HDR) - UEVE**  
*Sujet* : Design, mechatronics, and control of platforms dedicated to human-centered applications  
*Supervisor* : Saïd Mammar, Professor - UEVE  
*Jury* :  

M. M'Saad	Professor at ENSI of Caen	President
A. Ferreira	Professor at ENSI of Bourges	Reviewer
T-M Guerra	Professor, LAMIH, U. Valenciennes	Reviewer
K. Youcef-Toumi	Professor at MIT, Cambridge USA	Reviewer
A. Pruski	Professeur, U. Metz	Examiner

*Keywords* :  
Haptic rendering, driving assistance, driving simulation.
- Dec. 2002**      **PhD in Robotics & Control - UEVE**  
*Sujet* : Haptic device control in the presence of transmission delay  
*Supervisor* : Florent Chavand, Professeur at IIE of Evry  
*Jury* :  

J-G. Fontaine	Professor at LVR, Bourges	President
P-A. Bliman	Researcher at INRIA	Reviewer
Ph. Coiffet	Research Director, LRP, CNRS	Reviewer
K. Youcef-Toumi	Professeur, MIT, Cambridge, USA	Reviewer
J-F. Maniere	Techno-Centre Renault, Paris	Examiner
S. Mammar	Professor at LSC, UEVE	Examiner
A. Kheddar	Associate Professor at LSC, UEVE	Examiner

*Keywords* :  
Haptic rendering, stability and stabilization of systems with delay.
- July 1999**      **Advanced Studies Degree in Robotics Paris 6**  
*Option* : Intervention and Service Robotics (RIS)
- June 1998**      **Engineer of Electronics Engineering, Institute of Electronics, Algeria**  
*Option* : Automatic Control

## 1.4 Responsibilities & Representations

### 1.4.1 Academic Responsibilities

- **Head of the Mobile Automatic Systems (SAM)** track of the Master 2 E3A<sup>1</sup>, 2020-2023.
- **Head of the Automatic and Electrical Engineering (AGE)** track of the Bachelor of Sciences for Engineering (2014-2020).
- **Head** of the electronics laboratory of the UFR S&T (2006-2009).
- **Head** of the professional internships Master 1 and Master 2 (2003-2006).
- **Head** of the schedules of all the courses of the UFR S&T (2004-2006).

### 1.4.2 Administrative Responsibilities

- **Vice-President** of International Relations of UEVE, 2023-2027.
- **Director of the Electrical Engineering Department** of the UFR S&T, 2015-2021.

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1. Electronics, Electrical Energy, Automatics

- **Advisor** for research projects to the President of UEVE : Call for Research Projects, 2015-2019.

### 1.4.3 Instances and Councils

- Elected member of the **Research Commission of the Academic Council** of UEVE, since December 2021.
- External member of the **Selection Committee** of the University of Lille, 2019-2020.
- Elected member of the **Research Commission of the Academic Council** of UEVE, 2015-2019.
- Member of the **Research Investment Commission (CIR)** of UEVE, 2015-2019.
- **President of the Recruitment Commissions** of ATER and second degree (PRAG / PRCE), 2015-2018.
- Member of the **Means Commission of the UFR S&T**, since 2020.
- Elected member of the **Council of the UFR S&T**, UEVE, 2011-2015 and then invited between 2015-2021.
- Member of the **Management Board of the UFR S&T**, 2015-2021.
- Elected member of the **IBISC Laboratory Council**, 2015-2021.
- Member of the **Council of Perfection** of the UFR S&T, UEVE, since 2012.
- Member of the **Specialists Commission** of sections 61 and 63 of UEVE, since 2004.
- Full member of the **Specialists Commission** of sections 61 and 63 of the University of Paris-Sud, 2006-2008.
- Member of the pool of external specialists in sections 61 and 63 of UPEC, since 2009.
- Elected member of the **Scientific Council of UEVE**, 2007-2010.

### 1.4.4 Networks and Learned Societies

- Member of the **Program Commission - DATAIA Convergence Institute**, University of Paris-Saclay, 2015-2018.
- **2015 - 2018**, Member of the **ICODE** institute of the University of Paris-Saclay. Federation of automatic and decision-making themes.
- **2003 - 2004**, Member of the **specific action** CNRS, number 131 on "Haptic Interfaces and Information" as part of the RTP 15 "Mediated Interfaces and Virtual Reality".
- **2003 - present**, Member of the **working groups of GDR** ISIS, MACS, and Robotics.

# 2

## Scientific activities

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### 2.1 Supervision Activities

#### 2.1.1 Post-Doctoral Supervision

The post-doctoral supervision activity can be summarized in the following table :

Post-doctoral Researchers	Periods	Keywords	Conferences / Journals
Zheng Dai	Apr.-Oct. 09	Haptics and Mobile Robotics	1 / 0
Kamal Messaoudène	Jan 09-Dec. 09	Safety of V2RM	1 / 0
Salim Hima	Feb. 06-Nov. 08	Driving Simulators	5 / 2

TABLE 2.1 – Summary of post-doctoral supervision.

#### 2.1.2 Doctoral Supervision

Doctoral Students	Supervision Rate	Period	Defended	Conferences / Journals
Obaida Alrazouk	50%	Oct. 21-Dec. 24	In progress	5/1
Martin Pryde	25%	Oct. 21-Dec. 24	In progress	3/0
Alexandre Heuillet	50%	Oct. 20-Dec. 23	Yes	2 / 2
Rayane Benyoucef	30%	Oct. 17-Dec. 20	Yes	3 / 1
Majda Fouka	40%	Oct. 16-Dec. 19	Yes	10 / 2
Pierre-Marie Damon	35%	Oct. 15-Nov. 18	Yes	9 / 2
Habib Dabladji	40%	Sept. 12-Dec. 15	Yes	8 / 2
Chabane Chenane	40%	Sept. 10-June. 14	Yes	5 / 0
Amine Khettat	25%	Oct. 09- ?	No	1 / 0
Hamid Slimi	50%	Sept. 07-Jan. 12	Yes	8 / 0
Lamri Nehaoua	90%	Feb. 05-Dec. 08	Yes	11 / 3
Mounir Saidi	40%	Sept. 00-July. 06	Yes	0 / 1
Hakim Mohellebi	SR	Jan. 03-Dec. 05	Yes	3 / 1

### 2.2 Outreach & Impact

#### 2.2.1 Seminars, Presentations, and Other Events

— International conferences : presentations of several communications [75, 117,105,99,98, 97,96,91,69,59,56,53].

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- Presentation of communications at JJCR [132] and JNRR [129].
- Plenary session at JDATIM'12, Annaba, Algeria [86].
- Presentation of an invited article at *ICCMD'06* [111].
- Seminar on haptic rendering stabilization in the presence of delay [131], Working Group on Delay Systems (GDR MACS).
- Seminar on haptic rendering and applications, Génopole internal seminar [130].
- Various internal presentations at the IBISC laboratory : seminar, permanent days.

### 2.2.2 Event Organization

- Invited Session on “Two-Wheeled Vehicles : Dynamics and Control” at *IEEE System Man and Cybernetics*, Banff, Canada, 2018.
- International Conference on Automatic Control, Telecommunication and Signals (ICATS'15), Annaba, Algeria.
- Participation in several International Program Committees” : ICNSC 2013/2014, EuroHaptics 2006, CISA 2009, ICOTS 2011/2012, Ro-Man 2015, and ICATS 2015.
- Invited Session on “Two-Wheeled Vehicles : Dynamics and Control” at the 9<sup>th</sup> Mediterranean Conference on Control and Automation, 2011, Greece.
- Chairman of the 1<sup>st</sup> Mediterranean Conference on Intelligent Systems and Automation (CISA'08) held from June 30 to July 2 in Annaba, Algeria.
- Participation in the organization of the EuroHaptics 2006 conference, 2006, Paris.
- Participation in the organization of JJCR, 2001, Evry.

### 2.2.3 Selections

- Nearly **150** peer-reviewed articles published. **H-index : 23** (source : Google Scholar).
- Doctoral and Research Supervision Grant (**PEDR**), 2020-2024.
- Winner of the **ABERTIS Chair**, Best Road Safety Thesis 2018 in France, doctoral thesis of Pierre-Marie Damon.
- Research or Thematic Conversion Leave (**CRCT**), 2<sup>nd</sup> semester 2019-2020.
- Promotion to **Hors Classe** of Associate Professors, national quota, 2019.
- Doctoral and Research Supervision Grant (**PEDR**), 2016-2020.
- 2018, **Best Regular Paper**, [59], at ICNSC'18, Zuhai, China.
- Excellence Scientific Grant (**PES**), 2012-2016.
- Research or Thematic Conversion Leave (**CRCT**), 1<sup>st</sup> semestre 2009-2010.

### 2.2.4 Invited speaker

- **2018**, H. Arioui, “Exposed Users and Training Aspects”, **Plenary Speaker**, Lab-Meeting Nouvelles Mobilités, Parc d'Exposition, La Villette, Paris, France.
- **2017**, H. Arioui, “The place of two-wheeled vehicles”, SATT Paris-Saclay Spring Days, Urban Campus of Paris-Saclay, France.

### Editorial Activities in Conferences

- **2021**, **Chairman of the session** Novel Applications I” at ICRA.
- **2020**, **Chairman of the session** Fuzzy Systems” at CDC.
- **2019**, **Chairman of the session** Robotics V” at CDC.
- **2019**, **Chairman of the session** Lane Perception and Prediction (II)” at ITSC.
- **2019**, **Chairman of the session** Lane Perception and Prediction (III)” at ITSC.
- **2018**, **Chairman of the session** Advanced Safety Systems (III)” at ITSC.

- **2018, Chairman of the session** Advanced Vehicular and Transportation Technologies for Smart Mobility and Traffic Control” at ITSC.
- **2018, Chairman of the session** Advanced Safety Systems” at ITSC.
- **2018, Co-Chairman of the session** Unmanned Ground Vehicles ...” at ICNSC.
- **2017, Co-Organization of an Invited Session** on Two-Wheeled Vehicles” at ISMC.
- **2011, Co-Organization of an Invited Session** on Two-Wheeled Vehicles” at MED.
- **2011, Chairman of the session** Delay System II” at ACC.
- **2009, Chairman of the session** “Assistive Robotics III” at ROMAN.

### Visiting Professor

- **Visiting Researcher**, NTU, Singapore. **October 2022 & July 2023.**
- **Visiting Researcher**, University of Tennessee, Knoxville, United States. **June 2022.**
- **Visiting Researcher**, University of Tennessee, Knoxville, United States. **March 2020.**
- **Visiting Researcher**, Baylo Laboratory, Singapore. **November 2019.**
- **Visiting Researcher**, MRL., MIT, Cambridge. United States. **October 2019.**
- **Visiting Researcher**, MRL., MIT, Cambridge. United States. **June 2018.**
- **Visiting Researcher**, MRL., MIT, Cambridge. United States. **February 2018.**
- **Visiting Researcher**, MRL., MIT, Cambridge. United States. **October 2014.**

### 2.2.5 PhD Thesis Defense

- **December 21, 2023** : Mr. Adel Mokrane, Doctor from Versailles University *Subject* : Navigation autonome des engins volants   voilures tournantes pour l’agriculture de pr cision. *Role* : **Examiner.**
- **July 6 2022** : Mr. Murad Shoman, Doctor from Gustave Eiffel University *Subject* : Effects of road surface characteristics and geometries on Safer Users Behaviour. *Role* : **President & Examiner.**
- **November 29, 2019** : Mr. Azaddien Zarrouk, Doctor from INSA de Bourges *Subject* : Robotic platform for guiding a magnetic actuator. *Role* : **Examiner.**
- **June 24, 2019** : Mr. Nidhal Cherrat, Doctor from the University of Jijel, Algeria *Subject* : Contribution to adaptive fuzzy PID control of NL systems. *Role* : **Examiner.**
- **December 4, 2018** : Mr. Walid Amokrane, Doctor from INSA de Bourges *Subject* : Development of a Magnetic Actuator for Robotic Guidance *Role* : **Reviewer.**
- **February 12, 2017** : Mr. Onyango Stevine Obura, Doctor from the University of Paris-Est *Subject* : Behaviour Modelling and System Control with Human in the Loop. *Role* : **Reviewer**
- **December 7, 2016** : Mr. Ly s Mellal, Doctor from INSA de Bourges *Subject* : Modeling and control of magnetic microrobots for treatment *Role* : **Examiner.**
- **December 15, 2016** : Mr. Gerardo Ayala Jaimes, Doctor from the University of Lille 1 *Subject* : Supervision of over-actuated steering system of mobile heavy vehicle. *Role* : **Reviewer.**
- **May 27, 2007** : Mr. Adel Merabet, Doctor from the University of Quebec at Chicoutimi *Subject* : Nonlinear predictive model control for an asynchronous machine. *Role* : **Reviewer**
- **July 2, 2006** : Mr. Mohamed Larbi Saidi, Doctor from the University of Annaba *Subject* : Implementation of predictive control laws for control? *Role* : **Examiner**



## 2.3 Research Grants

- **2022 - ... : eMC2 ANR project**, on assistance to V2RM drivers. Budget : **186 K€**. **Responsable scientifique.**
- **2019 - 2020 : TEDw project**, STIC department of Paris-Saclay. Study of the impact of vision direction on trajectory. Budget : **19 K€**. **Porteur.**
- **2019 - 2020 : Purchase of a VICON installation and a SWIR camera.** Research Investment Commission (**CIR**). Budget : **40 K€**.
- **2016 - 2020 : VIROLO++ ANR project**, Study of cornering in motorcycles : applications to training. Budget : **192 K€**. **Scientific manager.**
- **2009 - 2014**, Within the framework of **FUI** projects : Driving Assistance for Motorized Two-Wheeled Vehicles (**e-MOTIVE**).
- **2008 - 2012 : CompanionAble**, European Integrated Project of the 7th PCRD. Budget : **270 K€**.
- **2006 - 2009, PREDIT-ANR : SIMulator for the Learning of 2R Driving (SIMACOM).** **Scientific manager.** Budget : **62 K€**, duration 4 years.
- **2006 - 2009, PREDIT-ANR : Study of driver hypovigilance (VIGISIM).** **Scientific manager.** Budget : **46 K€**, duration 4 years.
- **2004 - 2006**, Within the framework of **PREDIT-ANR** projects : Identification of Accident Situations of Two-Wheeled Vehicles (**SUMOTORI**).
- **2003 - 2008, INTUITION Network of Excellence** of the 6th PCRD. **Scientific manager.** Budget : **600 K€**.

# 3

## Publications list

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### 3.1 International peer-reviewed journals

1. O. Alrazouk, A. Chellali, H. Hadj-Abdelkader and **H. Arioui**, "Vision-Based Estimation of Motorcycle Attitude", IEEE Robotics and Automation Letters, vol. 8, no. 9, pp. 5759 - 5766, Aug. 2023.
  2. A. Heuillet, H. Tabia, **H. Arioui** and K. Youcef-Toumi, "D-DARTS : Distributed Differentiable Architecture", Pattern Recognition Letters, vol. 176, no. 1, pp. 42-48, Dec. 2023.
  3. A. Heuillet, H. Tabia, **H. Arioui** and K. Youcef-Toumi, "NASiam : Efficient Representation Learning using Neural Architecture Search for Siamese Networks", arXiv preprint arXiv :2302.00059, 2023.
  4. A. Heuillet, H. Tabia, **H. Arioui** and K. Youcef-Toumi, "Efficient Automation of Neural Network Design : A Survey on Differentiable Neural Architecture Search", arXiv preprint arXiv :2304.05405, 2023.
  5. R. Benyoucef, L. Nehaoua, H. Hadj-Abdelkader and **H. Arioui**, "Towards Kinematics From Motion : Unknown Input Observer and Dynamic Extension Approach,"
  6. H. Arioui and L. Nehaoua, "Unknown Dynamics Decoupling to Overcome Unmeasurable Premise Variables in Takagi-Sugeno Observer Design," IEEE Control Systems Letters, vol. 5, no. 1, pp. 61-66, Jan. 2021.
  7. M. Fouka, L. Nehaoua, **H. Arioui** and S. Mammam, "Motorcycle State Estimation and Tire Cornering Stiffness Identification Applied to Road Safety : Using Observer Based Identifiers", IEEE Transactions on Intelligent Transportation Systems, 2021, doi : 10.1109/TITS.2021.3066417.
  8. M. Fouka, L. Nehaoua, **H. Arioui** and S. Mammam, "Full Order Observer With Unmatched Constraint : Unknown Parameters Identification", IEEE Control Systems Letters, Juin 2019, volume 3, issue 4, pages 1026 - 1031.
  9. P-M. Damon, D. Ichalal and **H. Arioui**, "Steering and Lateral Motorcycle Dynamics Estimation : Validation of Luenberger LPV Observer Approach", IEEE Transactions on Intelligent Vehicles, 2019, volume 4, issue 2, pages 277 - 286.
  10. P-M. Damon, H. Hadj-Adelkader, **H. Arioui**, and K. Youcef-Toumi, " Image-based lateral position, steering behavior estimation and road curvature prediction for motorcycles", IEEE Robotics and Automation Letters, April 2018, volume 3, issue 3, pages 2694 - 2701.
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11. N. Cherrat, H. Boubertakh and **H. Arioui**, “Adaptive Fuzzy PID control for a class of uncertain mimo nonlinear systems with dead-zone inputs? nonlinearities”, Iran Journal Science and Technology Transaction of Electrical Engineering, Mars 2018, volume 42, number 1, pages 21 - 39.
12. H Dabladji, D Ichalal, **H. Arioui** and S. Mammar, “Toward a Robust Motorcycle Braking”, IEEE Transactions on Control Systems Technology, Mai 2017, volume 25, issue 3, pages 1052 - 1059.
13. H Dabladji, D Ichalal, **H. Arioui** and S. Mammar, “Unknown-input observer design for motorcycle lateral dynamics : TS approach”, Control Engineering Practice, September 2016, volume 25, issue 3, pages 12 - 26.
14. L. Nehaoua, D. Ichalal, **H. Arioui**, S. Mammar and L. Fridman, “An Unknown Input HOSM Approach to Estimate Lean and Steering Motorcycle Dynamics”, IEEE Transactions on Vehicular Technology, September 2014, volume 67, issue 1, pages 3116 - 3127.
15. L. Nehaoua, **H. Arioui** and S. Mammar, “Motorcycle Riding Simulator : How to Estimate Robustly the Rider’s Action?”, IEEE Transactions on Vehicular Technology, January 2013, volume 62, issue 1, pages 80 - 88.
16. L. Nehaoua, **H. Arioui**, N. Séguy and S. Mammar, “Dynamic modeling of a two-wheeled vehicle : Jourdain formalism”, Vehicle System Dynamics : International Journal of Vehicle Mechanics and Mobility, February 2013, volume 51, issue 5, pages 648-670.
17. **H. Arioui**, L. Nehaoua, R. Bertin and S. Espié, “From Design to Experiments of a 2 DOF Vehicle Driving Simulator”, IEEE Transactions on Vehicular Technology. February 2011, volume 60, issue 2, pages 357-368.
18. **H. Arioui**, L. Nehaoua, S. Hima, N. Séguy and S. Espié, “Mechatronics, Design and Modeling of a Motorcycle Riding Simulator”, IEEE/ASME Transactions on Mechatronics. October 2010, volume 15, issue 5, pages 805-818.
19. L. Nehaoua, H. Mohellebi, **H. Arioui**, A. Kheddar and S. Espié, “Design and Control of a Minimum-Clearance Driving Simulator”, IEEE Transactions on Vehicular Technology. March 2008, volume 57, issue 2, pages 736-746.
20. M.L. Saidi, **H. Arioui** and H. A. Abbassi, “Predictive Control of Motion Platform in Driving Simulator”, Journal of Information Technology. June 2006, volume 5, number 2, pages 133-138.
21. **H. Arioui**, A. Kheddar and S. Mammar, “A Model Based Controller for Interactive Force Reflecting Virtual Environment under Time Delay”, Journal of Intelligent and Robotic Systems -Theory and Applications-. June 2003, volume 37, number 2, pages 193-207.

### 3.2 Books

22. L. Nehaoua, **H. Arioui**, “La simulation de conduite : application aux motocycles”, Edition ISTE, Collection Automatique, ingénierie des systèmes, productique, Mars 2014.
23. **H. Arioui**, L. Nehaoua, “Driving Simulation”, Edition Wiley-ISTE, Automation and Control Series., Octobre 2013.

24. **H. Arioui**, R. Merzouki and H. A. Abbassi, "Intelligent Systems and Automation", Series : AIP Conference Proceedings, Vol. 1019, July 2008. ISBN : 9780735405400.

### 3.3 Chapters

25. L. Nehaoua and **H. Arioui**, "Optimal Mechatronics for Driving Simulator Application", Book Chapter in : "Mechatronic & Innovative Applications", Editors : R. Merzouki and A. K. Samantaray, Edition Bentham Science Publishers, chapter 17, pages 70-86, ISBN : 9781608054404. 2012.
26. **H. Arioui**, "Effect of Transmission Delay on Haptic Perception in Shared Virtual Environments", Book Chapter in : "End-to-End Quality of Service Engineering in Next Generation Heterogeneous Networks", Edition ISTE/Wiley, Novembre 2008, chapitre 17, pages 435-448. ISBN : 9781848210615.
27. **H. Arioui**, "Impact des R seaux de Communication sur la Perception Haptique en R alit  Virtuelle", Chapitre de livre dans : "M canismes du contr le de la qualit  de service : applications temps r el and multim dia", Trait  IC2, s rie traitement du signal and de l'image, Edition Herm s, Mars 2007, chapitre n 10, pages 289-303. ISBN : 9782746214880.
28. H. Mohellebi, S. Espi , A. Kheddar and **H. Arioui**, "Design of low-clearance motion platform for driving simulator", Chapitre de livre dans : "Mechatronics for Safety, Security and Dependability in a New Era", Edition Elsevier Science and Technology Books, Editeurs : Eiji Arai and Tatsuo Arai, October 2006, chapitre n 4, pages 401-405. ISBN : 9780080449630.

### 3.4 International Conferences

29. M. Pryde, L. Nehaoua, H. Hadj-Abdelkader, and **H Arioui**, "Velocity Estimation for Motorcycles Using Image-to-Road Mapping," 2023, 62<sup>nd</sup> IEEE Conference on Decision and Control (CDC), pp. 3199-3205.
30. **H Arioui**, L. Nehaoua, and H. Hadj-Abdelkader, "Vision-based approach for estimating lateral dynamics of Powered Two-Wheeled Vehicles," 2023, American Control Conference (ACC), pp 999-1005.
31. A. Heuillet, H. Tabia, **H. Arioui** and K. Youcef-Toumi, "Automated Siamese Network Design for Image Similarity Computations," 2023, 20<sup>th</sup> International Conference on Content-based Multimedia Indexing, pp. 8-13.
32. A. Heuillet, M. Jiang, **H. Arioui** and H. Tabia, "Action Text Diffusion Prior Network for Action Segmentation," 2023, 20<sup>th</sup> International Conference on Content-based Multimedia Indexing, pp. 79-85.
33. M. Pryde, L. Nehaoua, H. Hadj-Abdelkader, and **H Arioui**, "Motorcycle State Estimation Using Visual-Inertial Odometry," 2023, 27<sup>th</sup> International Technical Conference on the Enhanced Safety of Vehicles (ESV) National Highway Traffic Safety Administration, no. 23-0225.

34. **H Arioui**, L. Nehaoua, and H. Hadj-Abdelkader, "Robust Structure from Motion observer : Input to State Stability approach," 2023, 22<sup>nd</sup> World Congress of the International Federation of Automatic Control (IFAC WC), vol. 56, n° 2, pp 11558-11563.
35. M. Pryde, L. Nehaoua, H. Hadj-Abdelkader, and **H Arioui**, "Improvements in visual-inertial lateral velocity estimation for motorcycles," 2023, 22<sup>nd</sup> World Congress of the International Federation of Automatic Control (IFAC WC), vol. 56, n° 2, pp 11558-11563.
36. O. Alrazouk, M. Pryde, A. Chellali, L. Nehaoua, and **H Arioui**, "Efficient Real-Time Road Curvature Estimation : Visual-Inertial Approach," 2023, 22<sup>nd</sup> World Congress of the International Federation of Automatic Control (IFAC WC), vol. 56, n° 2, pp 4953-4958.
37. O. Alrazouk, A. Chellali, L. Nehaoua, and **H Arioui**, "Visual-aid effects on novice drivers of Powered Two-Wheeled Vehicles on a virtual simulator," 2022, 9<sup>th</sup> International Conference on Advancement in Applied Mathematics (ICAAM 2022).
38. O. Alrazouk, M. Pryde, A. Chellali, L. Nehaoua, and **H Arioui**, "A Geometric approach for estimating sideslip angle for Powered Two-Wheeled Vehicles," 2022 17<sup>th</sup> International Conference on Control, Automation, Robotics and Vision (ICARCV), pages 905-910.
39. M. Pryde, O. Alrazouk, L. Nehaoua, H. Hadj-Abdelkader and **H Arioui**, "Visual-inertial lateral velocity estimation for motorcycles using inverse perspective mapping," 2022 17<sup>th</sup> International Conference on Control, Automation, Robotics and Vision (ICARCV), pages 217-222.
40. R. Benyoucef, L. Nehaoua, H. Hadj-Abdelkader and **H Arioui**, "Structure from Motion with variable focal length : Interconnected fuzzy observer," 60<sup>th</sup> IEEE Conference on Decision and Control (CDC), 2021, pages 6145-6150.
41. R. Benyoucef, L. Nehaoua, H. Hadj-Abdelkader and **H Arioui**, "Towards Kinematics From Motion : Unknown Input Observer and Dynamic Extension Approach," 60<sup>th</sup> IEEE Conference on Decision and Control (CDC), doi : 10.1109/LCSYS.2021.3093067.
42. A. Heuillet, H. Tabia, **H Arioui** and K. Youcef-Toumi, "D-DARTS : Distributed Differentiable Architecture Search," International Conference on Computer Vision (ICCV'21), Montréal, Canada, 2021.
43. **H Arioui** and L. Nehaoua, "Quasi-LPV Unknown Input Observer with Nonlinear Outputs : Application to Motorcycles," IEEE International Conference on Robotics and Automation (ICRA'21), Xi'an, China, 2021, pp. 9312-9317.
44. M. Fouka, L. Nehaoua and **H Arioui**, "Data Calibration and Quasi-LPV Unknown Input Observer : Powered Two-Wheeled Vehicle," 59<sup>th</sup> IEEE Conference on Decision and Control (CDC), Jeju, South Korea, 2020, pp. 3921-3926
45. **H Arioui**, D. Ichalal, L. Nehaoua and S. Mammar, "Conservatism reduction for Nonlinear Takagi-Sugeno Observer : Interconnected System Approach.", 58<sup>th</sup> Conference on Decision and Control (CDC'19), Nice, France, 11-13 Décembre 2019, pages 1577-1582.
46. R. Benyoucef, L. Nehaoua, H. Hadj-Abdelkader and **H Arioui**, "Depth Estimation for a Point Feature : Structure from Motion & Stability Analysis.", 58<sup>th</sup> Conference on Decision and Control (CDC'19), Nice, France, 11-13 Décembre 2019, pages 3991-3996.
47. R. Benyoucef, L. Nehaoua, H. Hadj-Abdelkader and **H Arioui**, "Linear Camera Velocities and Point Feature Depth Estimation Using Unknown Input Observer", 15<sup>th</sup> IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS'19),

- Workshop on Planning, Perception, Navigation for Intelligent Vehicle, Macau, Chine, 4-8 Novembre 2019.
48. M. Fouka, L. Nehaoua, **H. Arioui**, S Mammam, "On Steady-State Cornering Analysis for Motorcycles", 22<sup>th</sup> IEEE Intelligent Transportation Systems Conference (ITSC'19), Auckland, New Zealand, 27-30 Octobre 2019, pages 3782-3787.
  49. P-M Damon, M. Fouka, H. Hadj-Abdelkader and **H. Arioui**, "Vision-Based Lane Crossing Point Tracking for Motorcycles", 22<sup>st</sup> International Conference on Intelligent Transportation Systems (ITSC'19), Auckland, New Zealand, 27-30 Octobre 2019, pages 3399-3404.
  50. M. Fouka, L. Nehaoua, **H. Arioui**, S Mammam, "Interconnected Observers for a Powered Two-Wheeled Vehicles : Both Lateral and Longitudinal Dynamics Estimation", 16<sup>th</sup> 2019 International Conference on Networking, Sensing and Control (ICNSC'19), Banff, AB, Canada, 9-11 Mai 2019, pages 163-168.
  51. M. Fouka, P-M Damon, L Nehaoua, **H. Arioui**, S Mammam, "Adaptive Observer for Motorcycle State Estimation and Tire Cornering Stiffness Identification", 57<sup>th</sup> IEEE Conference on Decision and Control (CDC'18), Miami, USA, 17-19 D cembre 2018, pages 3018 - 3024.
  52. M. Fouka, L Nehaoua, **H. Arioui**, S Mammam, "Motorcycle inertial parameters identification via algorithmic computation of state and design sensitivities", 29<sup>th</sup> IEEE Intelligent Vehicles Symposium (IV'18), 26-30 Juin 2018, pages 3926-3929.
  53. M Fouka, L Nehaoua, **H. Arioui**, S Mammam, "Road Geometry and Steering Reconstruction for Powered Two Wheeled Vehicles", 21<sup>st</sup> International Conference on Intelligent Transportation Systems (ITSC'18), Maui, Hawaii, USA, 5-9 Novembre 2018, pages 2024 - 2029.
  54. M Fouka, S Gelmini, S Strada, M Tanelli and S Savaresi, "Analysis and development of an IMU axes self-calibration algorithm for motorcycles", 21<sup>st</sup> International Conference on Intelligent Transportation Systems (ITSC'18), Maui, Hawaii, USA, 5-9 Novembre 2018.
  55. P-M Damon, H Hadj-Adelkader, **H Arioui** et K Youcef-Toumi, "Inverse Perspective Mapping Roll Angle Estimation for Motorcycles", 15<sup>th</sup> International Conference on Control, Automation, Robotics and Vision (ICARCV'18), Singapour, 19-21 Novembre 2018, pages 355 - 360.
  56. P-M Damon, H Hadj-Adelkader, **H Arioui** et K Youcef-Toumi, "Image-based lateral position, steering behavior estimation and road curvature prediction for motorcycles", IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS'18), Madrid, Espagne, 1-5 Octobre 2018, pages 2694 - 2701.
  57. P-M Damon, H Hadj-Adelkader, **H Arioui** et K Youcef-Toumi, "Powered Two-Wheeled Vehicles Steering Behavior Study : Vision-Based Approach", 15<sup>th</sup> International Conference on Control, Automation, Robotics and Vision (ICARCV'18), Singapour, 19-21 Novembre 2018, pages 355 - 360.
  58. M Fouka, L Nehaoua, **H. Arioui**, S Mammam, "Simultaneous Parameters Identification and State Estimation based on Unknown Input Observer for a class of LPV Systems", Annual American Control Conference (ACC18), Milwaukee, WI, USA, 26-30 Juin 2018, pages 1120 - 1125.
  59. S Mammam, **H. Arioui**, "Static output feedback control for lane change maneuver", 15<sup>th</sup> IEEE International Conference on Networking, Sensing and Control (ICNSC'18), Zhuhai, China, 27-29 Mars 2018.

60. N Cherrat, H Boubertakh and **H. Arioui**, "Adaptive fuzzy PID control for a quadrotor stabilisation", IOP Conference Series : Materials Science and Engineering (MSE'17), Moscow, Russie, 15-16 November, 2017, pages 1 - 5.
61. N Cherrat, H Boubertakh and **H. Arioui**, "An adaptive fuzzy PID control for a class of SISO uncertain nonlinear systems", 5<sup>th</sup> International Conference on Electrical Engineering-Boumerdes (ICEE-B'17), Boumerdes, Alg rie, 29-31 Octobre, 2017, pages 1 - 6.
62. P-M Damon, D. Ichalal, **H. Arioui**, S Mammam, "Cascaded flatness-based observation approach for lateral motorcycle dynamics estimation", IEEE International Conference on Systems, Man, and Cybernetics (SMC'17), Banff, AB, Canada, 5-8 Octobre 2017, pages 3243 - 3248.
63. P-M Damon, L Nehaoua, D Ichalal, **H. Arioui**, "Rider weight consideration for observer design with an application to the estimation of the lateral motorcycle dynamics and rider's action", IEEE International Conference on Systems, Man, and Cybernetics (SMC'17), Banff, AB, Canada, 5-8 Octobre 2017, pages 3400 - 3405.
64. M Fouka, L Nehaoua, **H. Arioui** and S Mammam, "Multiple-gradient descent algorithm for parametric identification of a powered two-wheeled vehicles", IEEE International Conference on Systems, Man, and Cybernetics (SMC'17), Banff, AB, Canada, 5-8 Octobre 2017, pages 3237 - 3242.
65. M Fouka, P-M Damon, L Nehaoua, **H. Arioui**, S Mammam, "Parametric identification of a powered two-wheeled vehicles : Algebraic approach", 25<sup>th</sup> Mediterranean Conference on Control and Automation (MED'17), Valetta, Malta, 3-6 Juillet, 2017, pages 1047 - 1052.
66. D Ichalal, P-M Damon, N. Ait-Oufroukh, **H. Arioui**, "PI Observer robust fault estimation for motorcycle lateral dynamics", IEEE 14<sup>th</sup> International Conference on Networking, Sensing and Control (ICNSC'17), Calabria, Italie, Mai 16-18, 2017, pages 127 - 132.
67. P-M Damon, L Nehaoua, D Ichalal, **H. Arioui**, "Lateral & Steering Dynamics Estimation for Single Track Vehicle : Experimental Tests", 20<sup>th</sup> IFAC World Congress (IFAC WC'17), Toulouse, France, Juillet 3-7, 2017, pages 3400 - 3405.
68. N Cherrat, H Boubertakh and **H. Arioui**, "An adaptive fuzzy PID control for a class of uncertain nonlinear underactuated systems", 8<sup>th</sup> International Conference on Modelling, Identification and Control (ICMIC'16), Alger, Alg rie, 15-17 Novembre, 2016, pages 677 - 682.
69. P-M Damon, H. Dabladji, D Ichalal, **H. Arioui**, "Estimation of lateral motorcycle dynamics and rider action with Luenberger observer", IEEE 19<sup>th</sup> International Conference on Intelligent Transportation Systems (ITSC'16), Rio de Janeiro, Brazil, Novembre 1-4, 2016, pages 2392 - 2397.
70. H Dabladji, P-M Damon, D Ichalal, **H. Arioui**, S Mammam, "Observer-based controller and separation principle for TS systems with unmeasurable premise variables", IEEE Conference on Control Applications (CCA'16), Buenos Aires, Argentina, Juillet 19-22, 2016, pages 954 - 959.
71. H Dabladji, P-M. Damon, D Ichalal, **H. Arioui**, S Mammam, "Lateral motorcycle dynamics and rider action estimation : An LPV unknown input observer approach", IEEE Conference on Control Applications (CCA'16), Buenos Aires, Argentina, Juillet 19-22, 2016, pages 711- 716.

72. H Dabladji, D Ichalal, **H. Arioui**, S Mammar, “On the Estimation of Longitudinal Dynamics of Powered Two-Wheeled Vehicles”, European Control Conference (ECC’15), Linz, Austria, Juillet 15-17, 2015, pages 921- 926.
73. P-M Damon, H Dabladji, D Ichalal, L Nehaoua, **H. Arioui**, S Mammar, “On the algebraic estimation of whole two-wheeled vehicles dynamics via High Order Sliding Mode Differentiators”, International Conference on Automatic control, Telecommunication and Signals (ICATS’15), Annaba, Alagérie, Novembre 2015.
74. H Dabladji, D Ichalal, **H. Arioui**, Said Mammar, “On the Estimation of Longitudinal Dynamics of Powered Two-Wheeled Vehicles”, European Control Conference (ECC’15), Linz, Austria, Juillet 15-17, 2015.
75. H Dabladji, D Ichalal, **H. Arioui**, Said Mammar, “ Estimation of Lateral Dynamics and Road Curvature for Two-Wheeled Vehicles : A HOSM Observer approach”, IFAC World Congress (IFAC WC’14), Cape Town, South Africa, Août 2014.
76. C Chenane, D Ichalal, **H. Arioui**, Said Mammar, S. Glaser “ Analysis of the leaning limit dynamics of Powered Two Wheeled vehicles ”, IEEE International Conference on Networking, Sensing and Control, April 7-9, 2014, Miami, FL, USA.
77. L Nehaoua, D Ichalal, **H. Arioui**, Said Mammar, Leonid Fridman, “ Lean and Steering Motorcycle Dynamics Reconstruction : An Unknown Input HOSMO Approach ”, American Control Conference (ACC), 2013.
78. D Ichalal, H Dabladji, **H. Arioui**, S Mammar, “ Observer Design for Motorcycle’s Lean and Steering Dynamics Estimation : a Takagi-Sugeno Approach ”, American Control Conference (ACC), 2013.
79. H Dabladji, D Ichalal, **H. Arioui**, Said Mammar, “ Observer-Based Controller for Single Track Vehicles ”, 52<sup>nd</sup> IEEE Conference on Decision and Control, Florence, 2013, pp. 2821 - 2826.
80. H Dabladji, D Ichalal, **H. Arioui**, Said Mammar, “ Roll Angle Observer-Based Controller Design for Powered Two-Wheelers ”, Bicycle and Motorcycle Dynamics 2013 (BMD’2013). Symposium on the Dynamics and Control of Single Track Vehicles, 11 - 13 November 2013, Narashino, Japan.
81. H Slimi, D Ichalal, **H. Arioui**, S Mammar, “ Motorcycle Maximal Safe Speed in Cornering Situation ”, IEEE International Conference on Networking, Sensing and Control (ICNSC), 2013.
82. C Chenane, D Ichalal, **H. Arioui**, S Mammar, “ Proportional Two Integral (P2I) Observer Synthesis for Single Track Vehicle ”, 20<sup>th</sup> IEEE Mediterranean Conference on Control and Automation (MED), 2012.
83. C Chenane, D Ichalal, **H. Arioui**, S Mammar, “ Lateral Dynamics Reconstruction for Sharp’71 Motorcycle Model with P2I Observer ”, 2nd International Conference on Systems and Control (ICSC), 2012.
84. D. Ichalal, **H. Arioui** and S. Mammar, “ Estimation de la dynamique latérale pour véhicules à deux roues motorisés ”, 7<sup>ème</sup> Conférence Internationale Francophone d’Automatique (CIFA’12), Grenoble, France, 4-6 juillet 2012.
85. H. Slimi, **H. Arioui** and S. Mammar, “ Dynamique limite and système d’alertes aux conducteurs de véhicules à deux roues motorisés”, 7<sup>ème</sup> Conférence Internationale Francophone d’Automatique (CIFA’12), Grenoble, France, 4-6 juillet 2012.
86. **H. Arioui**, “ Techniques d’Observation par Approches Polytopiques ”, Conférencier invité aux Journées Doctorales STIC (JDATIM’12), Annaba, Algérie, 15-17 Janvier 2012.



87. L. Nehaoua and **H. Arioui** and L. Fridman, " Force feedback control based on VGSTA for single track riding simulator", 50<sup>th</sup> IEEE Conference on Decision and Control and European Control Conference (CDC-ECC'11), 2011, Orlando, Florida, USA, December 12-15, pp. 8243-8248.
88. P. Nadrag, **H. Arioui** and Ph. Hoppenot, " Remote Control of an Assistive Robot using Force Feedback ", 15<sup>th</sup> ACM/IEEE International Conference on Advanced-Robotics Interaction (ICAR'11), Tallinn, Estonia, June 20 - 23, 2011, pp. 211 - 216.
89. D. Ichalal, **H. Arioui** and S. Mammar, " Observer design for a single track vehicle : A Takagi-Sugeno approach with unmeasurable premise variables ", 19<sup>th</sup> IEEE Mediterranean Conference on Control and Automation (MED'11), Corfu, Greece, June 20-23, 2011, pp. 934 - 939.
90. L. Nehaoua and **H. Arioui**, " Two-wheeled vehicle simulators : a state of art ", 19<sup>th</sup> IEEE Mediterranean Conference on Control and Automation (MED'11), Corfu, Greece, June 20-23, 2011, pp. 940 - 945.
91. **H. Arioui** and Ph. Hoppenot, " Force Feedback Stabilization for Remote Control of An Assistive Mobile Robot", IEEE American Control Conference (ACC'11), San Francisco, California, USA, June 29 - July 1, pp. 4898 - 4903.
92. L. Nehaoua, **H. Arioui**, A. Khettat, H. Imine and S. Espi , " Rider Steer Torque Estimation for Motorcycle Riding Simulator", 5<sup>th</sup> IFAC Symposium on Mechatronic Systems (Mech'10), Cambridge Massachusetts, USA, September 13-15, 2010, pp 505-510.
93. A. Merabet, **H. Arioui**, "Robust Cascaded Feedback Linearizing Control of Nonholonomic Mobile Robot", IEEE Conference on Electrical and Computer Engineering (CCECE'10), May 2-5, 2010, Calgary, Alberta, Canada.
94. H. Slimi, **H. Arioui**, L. Nouveliere and S. Mammar, "Motorcycle Speed Profile in Cornering Situation", American Control Conference (ACC'10), Baltimore, Maryland, USA, 30 June - 02 July, 2010, pp 1172-1177.
95. H. Slimi, **H. Arioui**, S. Mammar and L. Nouveliere, "Advanced Motorcycle-Infrastructure-Driver Roll Angle Profile for Loss Control Prevention", 12<sup>th</sup> International IEEE Conference on Intelligent Transportation Systems (ITSC'09), St. Louis, USA, October 3-7, 2009, pp 1-6.
96. **H. Arioui**, "Modeling and Identification of 2 DOF Low Cost Driving Simulator : Experimental Results", 18<sup>th</sup> IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN'09), Toyama, Japan, Septembre 27 - Octobre 2, 2009, pp 1162-1167.
97. **H. Arioui** and S. Hima, "2 DOF Low Cost Platform for Driving Simulator : Design and Modeling", IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM'09), Singapore, July 14-17 2009, pp 1206-1211.
98. H. Slimi, **H. Arioui**, L. Nouveliere and S. Mammar, "Preventive Safety : Warning System for Control Loss of Two-Wheeled Vehicles", 2<sup>nd</sup> Mediterranean Conference on Intelligent Systems and Automation 2009 (CISA'09), Djerba, Tunisia, March 23-25 2009.
99. L. Nehaoua, **H. Arioui**, S. Hima and N. S guy, "A New Motorcycle Simulator Platform : Mechatronics Design, Dynamics Modeling and Control", 17<sup>th</sup> IFAC World Congress 2008 (WC'08), Seoul, South Korea, July 06-11 2008, pp 4452-4457.
100. S. Hima, L. Nehaoua, N. S guy and **H. Arioui**, "Suitable Two Wheeled Vehicle Dynamics Synthesis for Interactive Motorcycle Simulator", 17<sup>th</sup> IFAC World Congress 2008 (WC'08), Seoul, South Korea, July 06-11 2008, pp 96-101.

101. L. Nehaoua and **H. Arioui**, "Parameters Identification for Motorcycle Simulator's Platform Characterization", 1<sup>st</sup> Mediterranean Conference on Intelligent Systems and Automation 2008 (CISA'08), Annaba, Algeria, June 30 - July 02 2008, pp 133-138.
102. S. Hima and **H. Arioui**, "Two Wheeled Vehicle Dynamics Synthesis for Real-Time Applications", 1<sup>st</sup> Mediterranean Conference on Intelligent Systems and Automation 2008 (CISA'08), Annaba, Algeria, June 30 - July 02 2008, pp 47-52.
103. A. Merabet, **H. Arioui** and M. Ouhrouche, "Cascaded Predictive Controller design for speed control and Load Torque rejection of Induction Motor", American Control Conference (ACC'08), Seattle, Washington, USA, 11-13 June 2008, pp 1139-1144.
104. S. Hima, L. Nehaoua, N. S guy and **H. Arioui**, "Motorcycle Dynamic Model Synthesis for Two Wheeled Driving Simulator", 10<sup>th</sup> International IEEE Conference on Intelligent Transportation Systems (ITSC'07), Seattle, USA, 1-5 October 2007, pp 617-622.
105. L. Nehaoua, **H. Arioui**, N. S guy and S. Espi , "Design and Modeling of a New Motorcycle Riding Simulator", American Control Conference (ACC'07), New York, NY, USA, 11-13 July 2007, pp 5594-5599.
106. L. Nehaoua, **H. Arioui**, N. S guy and S. Espi , "Open-Loop Tests and Validation of a New Two-Wheeled Vehicle Riding Simulator", European Control Conference (ECC'07), Kos, Greece, 02-04 July 2007, pp 4911-4916.
107. L. Nehaoua, **H. Arioui**, S. Hima and N. S guy, "Two-Wheeled Vehicle Driving Simulator : Design and Actuation", IEEE Intelligent Vehicle Symposium (IV'07), Istanbul, Turkey, 13-15 June 2007.
108. K. Tourbah, **H. Arioui**, N. S guy, A. Kheddar, "Collaborative Haptic Simulation", IEEE Conference on Control Application (ICCA'06), Munich, Allemagne, 15-19 October 2006, pp 46-51.
109. L. Nehaoua, **H. Arioui**, H. Mohellebi and S. Espi , "Restitution Movement for a Low Cost Driving Simulator", American Control Conference (ACC'06), Minnesota, USA, 05-08 June 2006, pp 2599-2604.
110. L. Nehaoua, **H. Arioui**, H. Mohellebi and S. Espi , "Motion Cueing Algorithms for Small Driving Simulator", International Conference on Robotics and Automation (ICRA'06), Orlando, USA, 15-19 May 2006, pp 3189-3194.
111. **H. Arioui**, "Haptic Interaction : Progress and Challenge", Papier invit    International Conference on Control Modelling and Diagnostic (ICCMD'06), Annaba, Alg rie, 22-24 May 2006.
112. **H. Arioui**, L. Nehaoua and A. Amouri, "Classic and Adaptive Washout Comparison for a Low Cost Driving Simulator" 13<sup>th</sup> IEEE Mediterranean Conference on Control and Automation (MED'05), Limassol, Chypre, 27-29 June 2005, pp 586-591.
113. H. Mohellebi, S. Espi , **H. Arioui**, A. Amouri and A. Kheddar, "Low cost motion platform for driving simulator" 5<sup>th</sup> International Conference on Machine Automation, (ICMA'04), Osaka, Japan, 24-26 November 2004, pp 271-277.
114. **H. Arioui**, A. Kheddar and S. Mammar, "A Robustness Analysis of Master-Model Based controller for stabilizing delayed haptic interaction : An LMI Approach", 11<sup>th</sup> International Conference on Advanced Robotics (ICAR'03), Lisbon, Portugal, June 30 - July 3, 2003, pp 1449-1455.
115. **H. Arioui**, "A Passive Wave-Based Approach under Time Varying Delay", 4<sup>th</sup> IEEE International Conference on Control and Application (ICCA'03), June 10-12, 2003, Montreal, Canada, pp 163-168.

116. **H. Arioui**, A. Kheddar and S. Mammar, "A Predictive Wave-Based Approach for Time Delayed Virtual Environment Haptics Systems", 11<sup>th</sup> IEEE International Workshop on Robot and Human Interactive Communication (ROMAN'02), Berlin, Germany, 25-27 September 2002, pp 134-139.
117. **H. Arioui**, M. Mana, A. Kheddar and S. Mammar, "Master-Model Based Time-delayed Force Feedback Interaction : Experimental Results", 17<sup>th</sup> IEEE International Symposium on Intelligent Control (ISIC'02), Vancouver, British Columbia, Canada, 23-30 October 2002, pp 896-901.
118. **H. Arioui**, A. Kheddar and S. Mammar, "Stable shared virtual environment haptic interaction under time-varying delay", 8<sup>th</sup> IEEE Methods and Models in Automation and Robotics (MMAR'02), Szczecin, Poland, 2-5 September 2002, pp 1145-1150.
119. **H. Arioui**, A. Kheddar and S. Mammar, "A Master Model-Based Stable Time-Delayed Force Feedback Interaction", 10<sup>th</sup> IEEE Mediterranean Conference on Control and Automation (MED'02), Lisbon, Portugal, 9-12 July 2002, pp 233-241.
120. **H. Arioui**, S. Mammar and T. Hamel, "A Smith-prediction based Haptic Feedback Controller for Time Delayed Virtual Environments Systems", American Control Conference (ACC'02), Alaska, USA, 8-12 May 2002, pp 4303-4308.

### 3.5 National Conferences

121. M. Fouka, L Nehaoua, **H. Arioui**, S Mammar, "Contributions to Parametric Identification and Observation of Powered Two-Wheeler Vehicles", Journées GTATT, GDR MACS, Nantes, 29 - 30 Janvier 2020.
122. M. Fouka, L Nehaoua, **H. Arioui**, S Mammar, "Adaptive LPV Observer for Motorcycle State Estimation and Tire Cornering Stiffness Identification", Journée de l'automatique du GDR MACS, Nantes, 15 - 16 novembre 2018.
123. M. Fouka, L Nehaoua, **H. Arioui**, S Mammar, "Identification paramétrique des véhicules à deux-roues : Optimisation Multi-objectif par Gradients", Journées Automatique and Automobile (JAA) du groupe de travail «Automatique and Automobile, GDR MACS (GTAA), Amiens, 18 - 19 octobre 2017.
124. M. Fouka, L Nehaoua, **H. Arioui**, S Mammar, "Lateral Motorcycle Dynamics and Rider Action Estimation", Les Journées Automatique and Automobile (JAA), Groupe de travail «Automatique and Automobile, GDR MACS (GTAA), Mulhouse, 7 - 8 Décembre 2016.
125. H. Dabladji, D. Ichalal, **H. Arioui** and S. Mammar,, "Observateurs non-linéaires pour l'estimation de la dynamique latérale des véhicules à deux-roues", Journées du Groupe de Travail Automatique and Automobile, Marseille, 4-5 Juin, 2014.
126. **H. Arioui**, " Contribution à l'observation des véhicules à deux-roues motorisés", Journées du Groupe de Travail Automatique and Automobile, Versailles, 23-24 Mai, 2012.
127. Ch. Chenane, H. Slimi, D. Ichalal, **H. Arioui** and S. Mammar, "Observation d'états dynamiques des véhicules à deux roues motorisés", 4<sup>ème</sup> Workshop du Groupement d'Intérêt Scientifique "Surveillance, Sûreté, Sécurité des Grands Systèmes" (GIS-3SGS'11), Valenciennes, 12-13 Octobre, 2011.

128. **H. Slimi, H. Arioui**, L. Nouvelière and S. Mammari, “ Dynamique critique des véhicules à deux roues motorisés : Modélisation and stabilisation LQG du mouvement de roulis”, MajecSTIC, Avignon France, 16-18 Novembre 2010.
129. **H. Slimi, H. Arioui**, S. Mammari and L. Nouvelière, “Système de Génération d’Alertes pour la Perte de Contrôle de Véhicules à deux Roues Motorisés”, Journées Nationales de la Recherche en Robotique (JNRR’09), Sologne, France, Novembre 3-6, 2009.
130. **H. Arioui**, “Réalité virtuelle and rendu haptique”, Séminaire interne de Genopole-Recherche, Evry, France, 25 mars 2005.
131. **H. Arioui**, “Stabilisation d’un système de téléopération en présence de retard de transmission par des méthodes prédictives”, Journées Systèmes à Retard (SAR’04), Paris, France, 18 March, 2004.
132. **H. Arioui**, “Téléopération avec retour d’effort en présence de retard de transmission : commande and analyse de stabilité”, 14<sup>ème</sup> Journées Jeunes Chercheurs en Robotique (JJCR’01), Evry, France, 31 May - 01 June 2001, pp 48-53.

### 3.6 Scientific Reports

133. **H. Arioui, P-M Damon** and **M Fouka** “Quantification de risque pour les véhicules a deux-roues motorisés (V2RM) : Aspects d’Estimation & de Perception” , Rapport de recherche, Projet ANR VIROLO++. Janvier 2019.
134. **H. Arioui, P-M Damon** and **M Fouka** “Identification de Paramètres and Estimation des Etats dynamiques des véhicules à deux roues-motorisés (V2RM)” , Rapport de recherche, Projet ANR VIROLO++. Mars 2018.
135. **H. Arioui, P-M Damon** and **M Fouka** “Identification de Paramètres des véhicules à deux roues-motorisés (V2RM)” , Rapport de recherche, Projet ANR VIROLO++. Octobre 2017.
136. **H. Arioui, L. Nehaoua**, S. Hima and N. Séguy, “Simulateur de détection des Altérations du comportement de conduite liées à l’attention and à la Vigilance : Sélection de mouvement, conception and modélisation du simulateur VIGISIM” , Rapport de recherche, Projet Predit-ANR VIGISIM. Janvier 2009.
137. **H. Arioui, L. Nehaoua**, S. Hima and N. Séguy, “SIMulateur pour l’Apprentissage de la CONduite de 2 roues Motorisés : Modélisation dynamique de véhicules de deux roues”, Rapport recherche, Projet Predit-ANR SIMACOM. Décembre 2009.
138. **H. Arioui** and A. Kheddar, “Contrat INTUITION IST-NMP-1-507248, WP1.A.2 State of the art and literature review on Virtual Reality over the World”, Network of Excellence (NoE) INTUITION Virtual Reality, April 2006.