



**Juliana Manrique Cordoba**

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## Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

I am an Industrial Automation engineer, graduated in 2019 from the Universidad del Cauca, Colombia. On 2013, I obtained B2 TOEFL certification in English. During my undergraduate studies I had the opportunity to participate in two different exchange programs, in 2015, I was a beneficiary of the Erasmus Mundus PUEDES program (Action 2), doing a 6-month stay at the Aristotle University of Thessaloniki, in Greece. The second stay was at the Miguel Hernández de Elche, Spain, where I participated in the research group of Biomedical Neuroengineering (nBio), this stay was carried out in 2018 and it's when my interest in medical and service robotics and informatics began. On September 2019, I entered the Industrial Electronic and Automatic Engineering program at the Miguel Hernández University of Elche, finishing in 2020 with the best undergraduate thesis award. On October 2022, I finished my Master's studies in Industrial Engineering at the Miguel Hernandez University, with a nomination of best final master's thesis.

The research I carried out during my undergraduate theses was titled "Mathematical model of a pancreas with type 1 diabetes integrated into a closed-loop insulin regulation system." The results of this research were disclosed on two occasions; in September 2018, during the XXIX Jornadas de Automática held in Badajoz, and in 2020, an article titled "Mathematical modeling of food intake and insulin infusion in a patient with type 1 diabetes in closed loop" was published in the Ibero-American Journal of Automatics and Industrial Informatics (RIAI), Vol. 17, No. 2, which has been externally cited 3 times in 2021. Subsequently, I performed another research project on Diabetes technologies titled "Modeling the influence of the menstrual cycle in patients with diabetes mellitus", this last project was also presented in the Jornadas de Robótica, Educación y Bioingeniería in Málaga 2022, as a paper and a poster, getting one of the best publications awards and the opportunity to be published in the RIAI; results of this research have also been published as poster and abstracts in the Advanced Technologies & Treatments for Diabetes International Conference on 2022. As of 2020, I contribute to the RitaDiab (Red Iberoamericana de Tecnologías Aplicadas a la Diabetes) project for technology transfer, taking part in different investigation projects, guiding undergraduate thesis in the subject. Since 2021 I participated in the RACE (Robotic Anastomosis Competence Evaluation) project as a full-time researcher.

In 2022 I was invited lecturer to the international seminar "X Seminario de Automática" at the Universidad del Cauca; I participated in the results dissemination session of the Innoavi project titled "Sistema no invasivo para la caracterización bioquímica, detección de componentes, y reconstrucción biomédica 3D de tejidos biológicos", and participated in teaching innovation programs on undergraduate level (Prodic). Also, during my studies I participated as a volunteer in the project "Red Experimental y Comparte del Cauca" (ID-4399), where I carried out training and dissemination activities on educational robotics, focused on different institutions of primary and secondary education.



I am currently doing my predoctoral research at the Miguel Hernandez University of Elche, in the bioengineering doctoral program.



## Juliana Manrique Cordoba

**Surname(s):** Manrique Cordoba  
**Name:** Juliana  
**DNI:** 43950704G  
**ORCID:** 0000-0002-0684-8534  
**Date of birth:** 25/07/1995  
**Gender:** Female  
**Nationality:** Colombia  
**Country of birth:** Colombia  
**Contact province:** Alicante  
**City of birth:** Cali  
**Contact address:** Avda. de la Universidad s/n. Ed. Vinalopó.  
**Rest of contact address:** Instituto de Bioingeniería. P1-015  
**Postcode:** 03202  
**Contact country:** Spain  
**Contact aut. region/reg.:** Valencian Community  
**Contact city:** Elche  
**Land line phone:** (+34) 641482418  
**Email:** jmanrique@umh.es  
**Personal web page:** <https://nbio.umh.es/perfil-del-grupo/personal/juliana-manrique/>

### Current professional situation

**Employing entity:** Universidad Miguel Hernández **Type of entity:** University de Elche

**Department:** Bioengineering institute, Universidad Miguel Hernández de Elche

**Professional category:** Predoctoral researcher

**City employing entity:** Elche, Valencian Community, Spain

**Phone:** (+34) 641482418

**Email:** jmanrique@umh.es

**Start date:** 03/10/2022

**Type of contract:** Grant-assisted student (pre or post-doctoral, others) **Dedication regime:** Full time

**Identify key words:** Bioinstrumentation; Biomedic robots; Navigation; Multimodal interaction

### Previous positions and activities

	Employing entity	Professional category	Start date
1	Universidad Miguel Hernández de Elche	Researcher	01/09/2021
2	CITAE - Fuerza Aérea Colombiana	Assistant researcher	07/2019

**1** **Employing entity:** Universidad Miguel Hernández **Type of entity:** University de Elche

**Professional category:** Researcher

**Start-End date:** 01/09/2021 - 01/09/2023

**Duration:** 1 year

**Type of contract:** Temporary employment contract



**2** **Employing entity:** CITAE - Fuerza Aérea  
Colombiana  
**Professional category:** Assistant researcher  
**Start-End date:** 07/2019 - 12/2019

**Type of entity:** State agency

**Duration:** 6 months



## Education

### University education

#### 1st and 2nd cycle studies and pre-Bologna degrees

- 1 University degree:** Higher degree  
**Name of qualification:** Master's Degree in Industrial Engineering  
**Degree awarding entity:** Universidad Miguel Hernández de Elche      **Type of entity:** University  
**Date of qualification:** 06/10/2022
- 2 University degree:** Higher degree  
**Name of qualification:** Industrial Electronics and Automation Engineering Degree  
**Degree awarding entity:** Universidad Miguel Hernández de Elche      **Type of entity:** University  
**Date of qualification:** 27/07/2020
- 3 University degree:** Título extranjero  
**Name of qualification:** Industrial Automation Engineering Degree  
**City degree awarding entity:** Popayán, Colombia  
**Degree awarding entity:** Universidad del Cauca      **Type of entity:** University  
**Date of qualification:** 18/06/2019
- 4 Name of qualification:** Erasmus Mundus PUEDES 2015 Scholarship  
**City degree awarding entity:** Kentriki Makedonia, Greece  
**Degree awarding entity:** Aristotle University of Thessaloniki      **Type of entity:** University  
**Date of qualification:** 19/02/2016  
**Standardised degree:** No  
**Foreign qualification:** Graduado o Graduada en Ingeniería Eléctrica

#### Doctorates

**Doctorate programme:** Bioingeniería  
**Degree awarding entity:** Universidad Miguel Hernández de Elche      **Type of entity:** University  
**Date of degree:** 01/10/2025



## Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
Portuguese	B1	B2	B1	A2	B1
English	B2	B2	B2	B2	B2

## Teaching experience

### Awards received for innovation in the field teaching

**Name of the prize:** Young Investigator Award  
**Awarding entity:** International Society for Medical Innovation and Technology  
**City awarding entity:** Cáceres, Spain  
**Proposed by:** International Society for Medical Innovation and Technology  
**Conferral date:** 27/09/2024

## Scientific and technological experience

### Scientific or technological activities

#### R&D projects funded through competitive calls of public or private entities

- Name of the project:** Collaborative Intraoperative path planning for precision robotic neurosurgery (CIPPO)  
**Geographical area:** Regional  
**Degree of contribution:** Researcher  
**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**City of entity:** Elche, Valencian Community, Spain  
**Name principal investigator (PI, Co-PI....):** José María Sabater Navarro; Miguel Ángel de la Casa Lillo; Victor F. Muñoz Martínez; Itziar Cabanes Axpe; F. Javier Gimeno Blanes; Juan Carlos Fraile Marinero; Concepción Parejo Prados  
**Nº of researchers:** 17  
**Funding entity or bodies:** Generalitat Valenciana **Type of entity:** institución gubernamental  
**Name of the programme:** Programa Prometeo para grupos de investigación de excelencia  
**Start-End date:** 01/09/2023 - 01/09/2027 **Duration:** 4 years  
**Total amount:** 234.900 €
- Name of the project:** Red Iberoamericana de Tecnologías Aplicadas a la Diabetes  
**Geographical area:** Non EU International  
**Degree of contribution:** Researcher  
**Entity where project took place:** International consortium  
**City of entity:** Madrid, Community of Madrid, Spain



**Nº of researchers:** 35  
**Name of the programme:** CYTED  
**Code according to the funding entity:** 220RT0004  
**Start-End date:** 01/01/2020 - 31/12/2023  
**Total amount:** 134.000 €

- 3** **Name of the project:** Modelado de la influencia del ciclo menstrual en pacientes con diabetes mellitus  
**Degree of contribution:** Researcher  
**Entity where project took place:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**City of entity:** Elche, Valencian Community, Spain  
**Name principal investigator (PI, Co-PI...):** Juliana Manrique Cordoba  
**Nº of researchers:** 1  
**Name of the programme:** Resolución Rectoral 00940/2020 de 01 de julio de 2020, Ayudas a la iniciación a la investigación  
**Start-End date:** 01/10/2020 - 23/12/2020 **Duration:** 3 months  
**Total amount:** 3.600 €

### R&D non-competitive contracts, agreements or projects with public or private entities

- 1** **Name of the project:** Robotic Anastomosis Competence Evaluation  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI...):** José María Sabater Navarro; Víctor Fernando Muñoz Martínez; Juan Carlos Fraile Marinero  
**Participating entity/entities:** Universidad Miguel Hernández de Elche; Universidad de Málaga; Universidad de Valladolid  
**Start date:** 01/09/2021
- 2** **Name of the project:** Desarrollo de cohetes sonda y meteorología Fase I  
**Degree of contribution:** Researcher  
**Nº of researchers:** 9  
**Start date:** 01/07/2019 **Duration:** 6 months
- 3** **Name of the project:** Sistema predictivo del brain-shift basado en mediciones de distancia no invasivas  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI...):** José María Sabater Navarro  
**Participating entity/entities:** Universidad Miguel Hernández de Elche  
**Start date:** 01/01/2017 **Duration:** 3 years



## Scientific and technological activities

### Scientific production

#### Publications, scientific and technical documents

- 1 Juliana Manrique Cordoba; Carlos Martorell Llobregat; Miguel Ángel de la Casa Lillo; José María Sabater Navarro. Trajectory Learning Using HMM: Towards Surgical Robotics Implementation. *Sensors*. 25 - 11, pp. 3487. MDPI, 31/05/2025. ISSN 1424-8220  
**DOI:** 10.3390/s25113487  
**Type of production:** Scientific paper **Format:** Journal  
**Position of signature:** 1  
**Total no. authors:** 4
- 2 Juliana Manrique Cordoba; Miguel Ángel de la Casa Lillo; José María Sabater Navarro. N-Dimensional Reduction Algorithm for Learning from Demonstration Path Planning. *Sensors*. 25 - 7, pp. 2145. MDPI, 28/03/2025. ISSN 1424-8220  
**DOI:** 10.3390/s25072145  
**Type of production:** Scientific paper **Format:** Journal  
**Position of signature:** 1  
**Total no. authors:** 3
- 3 Juan David Romero Ante; Esther Chicharro Luna; Juliana Manrique Cordoba; José María Vicente Samper; Alba García Sanchez; José María Sabater Navarro. Validation of a New Ankle Brachial Index Measurement System Using Pulse Wave Velocity. *Biosensors*. 14 - 5, pp. 251. MDPI, 16/05/2024.  
**DOI:** 10.3390/bios14050251  
**Type of production:** Scientific paper **Format:** Journal  
**Corresponding author:** No
- 4 Juliana Manrique Cordoba; Carlos Martorell; Juan David Romero Ante; José María Sabater Navarro. Neural Tract Avoidance Path-Planning Optimization: Robotic Neurosurgery. *Applied Sciences*. 14 - 9, pp. 3687. MDPI, 26/04/2024.  
**DOI:** 10.3390/app14093687  
**Type of production:** Scientific paper **Format:** Journal  
**Corresponding author:** Yes
- 5 Juan Sebastián Montenegro Bravo; Juan David Ruiz Flórez; Juan David Romero Ante; Juliana Manrique Cordoba; Oscar Andrés Vivas Albán; José María Sabater Navarro. Generador 3D de trayectorias libres de colisiones para un manipulador UR3e con pinza blanda. *Revista Iberoamericana de Automática e Informática Industrial*. 21 - 1, Comité Español de Automática, 13/07/2023.  
**DOI:** 10.4995/riai.2023.19332  
**Type of production:** Scientific paper **Format:** Journal  
**Corresponding author:** No
- 6 Juliana Manrique Cordoba; Juan David Romero Ante; José María Vicente Samper; José María Sabater Navarro. Modelado de la influencia del ciclo menstrual en el sistema glucosa-insulina en individuos sanas. *Revista Iberoamericana de Automática e Informática Industrial*. 21 - 1, (Spain): Comité Español de Automática, 28/06/2023.  
**DOI:** 10.4995/riai.2023.18533



**Type of production:** Scientific paper  
**Corresponding author:** No

**Format:** Journal

- 7** David Zambrana Vinaroz; José María Vicente Samper; Juliana Manrique Cordoba; José María Sabater Navarro. Wearable Epileptic Seizure Prediction System Based on Machine Learning Techniques Using ECG, PPG and EEG Signals. *Sensors*. 22 - 23, pp. 9372. MDPI, 01/12/2022. ISSN 1424-8220  
**DOI:** 10.3390/s22239372

**Type of production:** Scientific paper

**Format:** Journal

- 8** Juliana Manrique Cordoba; Juan David Romero Ante; José María Sabater Navarro; José María Vicente Samper. Menstrual Cycle Influence In A Glucose-Insulin Model: Dynamics And OGTT Validation. *Diabetes Technology & Therapeutics*. 24, pp. A10 - A11. 25/04/2022. ISSN 1520-9156  
**DOI:** 10.1089/dia.2022.2527.abstracts

**Type of production:** Scientific paper

**Format:** Book

**Corresponding author:** Yes

- 9** Juliana Manrique Córdoba; Juan David Romero Ante; Andrés Vivas Albán; José María Vicente Samper; José María Sabater Navarro. Modelado matemático de ingestas de alimento e infusión de insulina en un paciente con diabetes tipo 1 en lazo cerrado. *Revista Iberoamericana de Automática e Informática Industrial*. 17 - 2, pp. 156 - 168. Comité Español de Automática, 25/04/2022. ISSN 1697-7912  
**DOI:** 10.4995/riai.2019.11161

**Type of production:** Scientific paper

**Format:** Journal

**Corresponding author:** Yes

- 10** Juan Camilo Solarte Orozco; Juliana Manrique Cordoba; Óscar Andrés Vivas Albán; Juan David Romero Ante; José María Sabater Navarro. Voice-Based AI-Powered Bolus Calculator. *Diabetes Technology & Therapeutics*. 24, pp. A10 - A10. 25/04/2022. ISSN 1520-9156  
**DOI:** 10.1089/dia.2022.2527.abstracts

**Type of production:** Scientific paper

**Format:** Book

**Corresponding author:** Yes

- 11** Juliana Manrique Cordoba; Juan David Romero Ante. Modelo matemático de un páncreas con diabetes tipo 1 integrado a un sistema de regulación de insulina en lazo cerrado. Universidad del Cauca. Repositorio Universidad del Cauca, 02/02/2019. Available on-line at: <<http://repositorio.unicauca.edu.co:8080/xmlui/handle/123456789/1703>>.

**Type of production:** Scientific book or monograph

**Format:** Book

**Degree of contribution:** Author or co-author of entire book

**Corresponding author:** Yes

## Works submitted to national or international conferences

- 1** **Title of the work:** Actividad electrodérmica como indicador preventivo de complicaciones por neuropatía periférica

**Name of the conference:** XLV Jornadas de Automática

**Corresponding author:** No

**City of event:** Málaga, Andalusia, Spain

**Date of event:** 04/09/2024

**End date:** 06/09/2024

**Organising entity:** Universidad de Málaga

**Type of entity:** University

**City organizing entity:** Málaga, Andalusia, Spain



Juan David Romero Ante; José María Vicente Samper; Juliana Manrique Cordoba; Vicente Steve Sala; Miguel Ángel De la Casa Lillo; José María Sabater Navarro. "XLV Jornadas de Automática: libro de actas". ISSN 3045-4093

DOI: doi.org/10.17979/ja-cea.2024.45

**2 Title of the work:** Modelado del efecto del ciclo menstrual de una paciente DM1 usando SimBiology

**Name of the conference:** XLV Jornadas de Automática

**Corresponding author:** No

**City of event:** Málaga, Andalusia, Spain

**Date of event:** 04/09/2024

**End date:** 06/09/2024

**Organising entity:** Universidad de Málaga

**Type of entity:** University

**City organizing entity:** Málaga, Andalusia, Spain

Marina Poveda Pérez; Juan David Romero Ante; Juliana Manrique Cordoba; Carlos Jara Bravo; José María Sabater Navarro. "XLV Jornadas de Automática: libro de actas". ISSN 3045-4093

DOI: doi.org/10.17979/ja-cea.2024.45

**3 Title of the work:** Apnea Detection in Newborns Using Abdominal IMU

**Name of the conference:** 46th Annual International Conference of the IEEE Engineering in Medicine and Biology Society

**Type of event:** Conference

**Corresponding author:** No

**City of event:** Orlando, United States of America

**Date of event:** 15/07/2024

**End date:** 19/07/2024

**Organising entity:** IEEE Engineering in Medicine and Biology Society

**Type of entity:** Associations and Groups

**Type of contribution:** Scientific paper

Matteo Ricci; Juliana Manrique Cordoba; Juan David Romero Ante; José María Vicente Samper; Francesca Cordella; José María Sabater Navarro. "Apnea Detection in Newborns Using Abdominal IMU". En: IEEE EMBC 2024 Conference Proceedings. 19/07/2024. ISBN 979-8-3503-7149-9

**4 Title of the work:** New Insulin on Board Estimation for Artificial Pancreas Systems

**Name of the conference:** 46th Annual International Conference of the IEEE Engineering in Medicine and Biology Society

**Type of event:** Conference

**Corresponding author:** No

**City of event:** Orlando, United States of America

**Date of event:** 15/07/2024

**End date:** 19/07/2024

**Organising entity:** IEEE Engineering in Medicine and Biology Society

**Type of entity:** Associations and Groups

**Type of contribution:** Scientific paper

Juan David Romero Ante; Juliana Manrique Cordoba; José María Vicente Samper; Jesús Cases Hurtado; Miguel Ángel de la Casa Lillo; José María Sabater Navarro. "New Insulin on Board Estimation for Artificial Pancreas Systems". En: IEEE EMBC 2024 Conference Proceedings. 19/07/2024. ISBN 979-8-3503-7149-9

**5 Title of the work:** Estudio de selectividad frente a disoluciones multicomponente de sensores de glucosa mediante tecnología planar de microondas

**Name of the conference:** XLIV Jornadas de Automática

**Corresponding author:** No

**City of event:** Zaragoza, Aragon, Spain



**Date of event:** 06/09/2023

**End date:** 08/09/2023

**Organising entity:** Universidad de Zaragoza,  
Escuela de Ingeniería y Arquitectura

**Type of entity:** University

Carlos Juan Poveda; Enrique Bronchalo; Benjamin Potelon; Cedric Quendo; Víctor Fernando Muñoz Martínez; José Manuel Ferrandez; Juliana Manrique Cordoba; José María Sabater Navarro. "XLIV Jornadas de Automática: libro de actas". ISBN 978-84-9749-860-9

**DOI:** 10.17979/spudc.9788497498609

**6 Title of the work:** Plataforma experimental para la obtención de las fuerzas de interacción en cirugía mínimamente invasiva

**Name of the conference:** XLIV Jornadas de Automática

**Corresponding author:** No

**City of event:** Zaragoza, Aragon, Spain

**Date of event:** 06/09/2023

**End date:** 08/09/2023

**Organising entity:** Universidad de Zaragoza,  
Escuela de Ingeniería y Arquitectura

**Type of entity:** University

Iliana María Rumbo; Jesús Cases Hurtado; Juliana Manrique Cordoba; Juan David Romero Ante; Carlos Martorell; Oscar Andrés Vivas Albán; José María Sabater Navarro. "XLIV Jornadas de Automática: libro de actas". ISBN 978-84-9749-860-9

**DOI:** 10.17979/spudc.9788497498609

**7 Title of the work:** Reducción de puntos de una trayectoria 3D basada en el algoritmo Douglas-Peucker. Aplicación a robótica quirúrgica

**Name of the conference:** XLIV Jornadas de Automática

**Corresponding author:** No

**City of event:** Zaragoza, Aragon, Spain

**Date of event:** 06/09/2023

**End date:** 08/09/2023

**Organising entity:** Universidad de Zaragoza,  
Escuela de Ingeniería y Arquitectura

**Type of entity:** University

Juliana Manrique Cordoba; Jesús Cases Hurtado; Juan David Romero Ante; Miguel Ángel De la Casa Lillo; José María Sabater Navarro. "XLIV Jornadas de Automática: libro de actas". ISBN 978-84-9749-860-9

**DOI:** 10.17979/spudc.9788497498609

**8 Title of the work:** Augmented Reality Holographic Visualization System for Surgery Auxiliary Visualization: Proof of Concept for Surgical Training

**Name of the conference:** 45th Annual International Conference of the IEEE Engineering in Medicine and Biology Society

**Type of event:** Conference

**Corresponding author:** No

**City of event:** Sydney, Australia

**Date of event:** 24/07/2023

**End date:** 28/07/2023

**Organising entity:** IEEE Engineering in Medicine  
and Biology Society

**Type of entity:** Associations and Groups

**Type of contribution:** Scientific paper

Natividad Bermejo; Juan David Romero Ante; Juliana Manrique Cordoba; José María Sabater Navarro; Carlos G. Juan. "Augmented Reality Holographic Visualization System for Surgery Auxiliary Visualization: Proof of Concept for Surgical Training". 24/07/2023.



- 9** **Title of the work:** Comparison of forces in surgical tip, trocar and robot end-effector in laparoscopic surgical trajectories  
**Name of the conference:** 45th Annual International Conference of the IEEE Engineering in Medicine and Biology Society  
**Type of event:** Conference  
**Corresponding author:** Yes  
**City of event:** Sydney, Australia  
**Date of event:** 24/07/2023  
**End date:** 28/07/2023  
**Organising entity:** IEEE Engineering in Medicine and Biology Society      **Type of entity:** Associations and Groups  
**Type of contribution:** Scientific paper  
Juliana Manrique Cordoba; Jesus Cases Hurtado; Miguel Ángel de la Casa; José María Sabater Navarro. "Comparison of forces in surgical tip, trocar and robot end-effector in laparoscopic surgical trajectories". 24/07/2023.
- 10** **Title of the work:** Enhancing task performance in endoscopic surgery on simulated surgical emergency situations: A study of the impact of computer vision support on novice surgeons' gaze strategies  
**Name of the conference:** 45th Annual International Conference of the IEEE Engineering in Medicine and Biology Society  
**Type of event:** Conference  
**Corresponding author:** No  
**City of event:** Sydney, Australia  
**Date of event:** 24/07/2023  
**End date:** 28/07/2023  
**Organising entity:** IEEE Engineering in Medicine and Biology Society      **Type of entity:** Associations and Groups  
**Type of contribution:** Scientific paper  
Alvaro Garcia; Juliana Manrique Cordoba; Miguel Ángel de la Casa; José María Sabater Navarro; Carlos G. Juan. "Enhancing task performance in endoscopic surgery on simulated surgical emergency situations: A study of the impact of computer vision support on novice surgeons' gaze strategies". 24/07/2023.
- 11** **Title of the work:** Setup para la comparación de fuerzas en cirugía mínima invasiva robotizada  
**Name of the conference:** Jornadas Nacionales de Robótica y Bioingeniería  
**Type of event:** Conference  
**Corresponding author:** No  
**City of event:** Madrid, Community of Madrid, Spain  
**Date of event:** 14/06/2023  
**End date:** 16/06/2023  
**Organising entity:** COMITE ESPAÑOL DE AUTOMATICA DE LA IFAC  
**City organizing entity:** Madrid, Community of Madrid, Spain  
**Type of contribution:** Scientific paper  
Jesús Cases Hurtado; Juliana Manrique Cordoba; Juan David Romero Ante; Arnau Busque Nadal; José María Vicente Samper; José María Sabater Navarro. 16/06/2023. ISBN 978-84-09-51892-0
- 12** **Title of the work:** Calculador inteligente de bolo de insulina en skill Alexa Amazon para pacientes con diabetes mellitus y deficiencia visual  
**Name of the conference:** XLIII Jornadas de Automática  
**Type of event:** Conference  
**Corresponding author:** No  
**City of event:** Logroño, La Rioja, Spain  
**Date of event:** 07/09/2022



**End date:** 09/09/2022

**Organising entity:** Universidad de La Rioja

**Type of entity:** University

**City organizing entity:** Logroño, La Rioja, Spain

**Type of contribution:** Scientific paper

Juan Camilo Solarte Orozco; Juliana Manrique Cordoba; Óscar Andrés Vivas Albán; Juan David Romero Ante; Carlos Gabriel Juan Poveda; José María Vicente Samper; José María Sabater Navarro. "Calculador inteligente de bolo de insulina en skill Alexa Amazon para pacientes con diabetes mellitus y deficiencia visual". La Rioja (Spain): ISBN 978-84-9749-841-8

**13 Title of the work:** Monitorización de fuerzas de mecanizado con un robot UR3e

**Name of the conference:** XLIII Jornadas de Automática

**Type of event:** Conference

**Corresponding author:** No

**City of event:** Logroño, La Rioja, Spain

**Date of event:** 07/09/2022

**End date:** 09/09/2022

**Organising entity:** Universidad de La Rioja

**Type of entity:** University

**City organizing entity:** Logroño, La Rioja, Spain

**Type of contribution:** Scientific paper

Guillermo Elvira Soler; Juliana Manrique Cordoba; José María Vicente Samper; José María Sabater Navarro. "Calculador inteligente de bolo de insulina en skill Alexa Amazon para pacientes con diabetes mellitus y deficiencia visual". La Rioja (Spain): ISBN 978-84-9749-841-8

**14 Title of the work:** Modelado y Validación de la Influencia del Ciclo Menstrual en el Sistema Glucosa-Insulina

**Name of the conference:** Jornadas de Robótica, Educación y Bioingeniería

**Type of event:** Conference

**Corresponding author:** No

**City of event:** Málaga, Andalusia, Spain

**Date of event:** 18/05/2022

**End date:** 20/10/2022

**Organising entity:** Universidad de Málaga

**Type of entity:** University

**City organizing entity:** Málaga, Andalusia, Spain

**Type of contribution:** Scientific paper

Juliana Manrique Cordoba; Juan David Romero Ante; José María Vicente Samper; José María Sabater Navarro. "Modelado y Validación de la Influencia del Ciclo Menstrual en el Sistema Glucosa-Insulina". ISBN 978-84-09-41095-8

**15 Title of the work:** Nueva Estimación de IOB para Sistemas de Páncreas Artificial

**Name of the conference:** Jornadas de Robótica Educación y Bioingeniería

**Type of event:** Conference

**Corresponding author:** No

**City of event:** Málaga, Andalusia, Spain

**Date of event:** 18/05/2022

**End date:** 20/05/2022

**Organising entity:** Universidad de Málaga

**Type of entity:** University

**City organizing entity:** Málaga, Andalusia, Spain

**Type of contribution:** Scientific paper

José María Sabater Navarro; Juan David Romero Ante; Juliana Manrique Cordoba; José María Vicente Samper; Carlos Gabriel Juan Poveda. "Nueva Estimación de IOB para Sistemas de Páncreas Artificial". (Spain): ISBN 978-84-09-41095-8



- 16** **Title of the work:** Menstrual Cycle Influence In A Glucose-Insulin Model: Dynamics And OGTT Validation  
**Name of the conference:** Advanced Technologies & Treatments for Diabetes  
**Type of event:** Conference  
**Corresponding author:** Yes  
**City of event:** Barcelona, Catalonia, Spain  
**Date of event:** 27/04/2022  
**End date:** 30/04/2022  
**Organising entity:** Global Education of Medicine and **Type of entity:** Associations and Groups Science  
**City organizing entity:** Geneva, Switzerland  
Juliana Manrique Cordoba; Juan David Romero Ante; José María Sabater Navarro; José María Vicente Samper. "MENSTRUAL CYCLE INFLUENCE IN A GLUCOSE-INSULIN MODEL: DYNAMICS AND OGTT VALIDATION". 25/04/2022. Available on-line at: <<https://www.liebertpub.com/doi/10.1089/dia.2022.2527.abstracts>>.  
**DOI:** 10.1089/dia.2022.2527.abstracts
- 17** **Title of the work:** Voice-Based AI-Powered Bolus Calculator  
**Name of the conference:** Advanced Technologies & Treatments for Diabetes  
**Type of event:** Conference  
**Corresponding author:** Yes  
**City of event:** Barcelona, Catalonia, Spain  
**Date of event:** 27/04/2022  
**End date:** 30/04/2022  
**Organising entity:** Global Education of Medicine and **Type of entity:** Associations and Groups Science  
**City organizing entity:** Geneva, Switzerland  
Juan Camilo Solarte Orozco; Juliana Manrique Cordoba; Oscar Andrés Vivas Albán; Juan David Romero Ante; José María Sabater Navarro. "VOICE BASED AI POWERED BOLUS CALCULATOR". 25/04/2022. Available on-line at: <<https://www.liebertpub.com/doi/10.1089/dia.2022.2527.abstracts>>.  
**DOI:** 10.1089/dia.2022.2527.abstracts
- 18** **Title of the work:** Simulador de Paciente T1D en Tiempo Real  
**Name of the conference:** XXXIX Jornadas de Automática  
**Type of event:** Conference  
**Corresponding author:** Yes  
**City of event:** Badajoz, Extremadura, Spain  
**Date of event:** 05/09/2018  
**End date:** 07/09/2018  
**Organising entity:** Comité Español De Automática (IFAC)  
**Type of contribution:** Scientific paper  
Juliana Manrique Córdoba; Juan David Romero Ante; Andrés Vivas Albán; José María Vicente Samper; José María Sabater Navarro. "Actas de las XXXIX Jornadas de Automática". (Spain): ISBN 978-84-09-04460-3



## R&D management and participation in scientific committees

### Organization of R&D activities

**Title of the activity:** X Seminario de Automática

**Type of activity:** Seminario Internacional

**City of event:** Popayán, Colombia

**Convening entity:** Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo

**Type of participation:** Organiser

**Nº assistants:** 300

**Start-End date:** 27/09/2022 - 30/09/2022

**Geographical area:** Non EU International

**Type of entity:** CYTED

## Other achievements

### Stays in public or private R&D centres

- 1** **Entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Faculty, institute or centre:** Instituto de Bioingeniería  
**City of entity:** Elche, Valencian Community, Spain  
**Start-End date:** 20/02/2018 - 31/07/2018  
**Funding entity:** Universidad Miguel Hernández de Elche **Type of entity:** University  
**Goals of the stay:** Undergraduate Student
- 2** **Entity:** Aristotle University of Thessaloniki **Type of entity:** University  
**Faculty, institute or centre:** Engineering Faculty  
**City of entity:** Thessaloniki, Kentriki Makedonia, Greece  
**Start-End date:** 01/09/2015 - 28/02/2016  
**Funding entity:** Erasmus Program  
**City funding entity:** Oviedo, Spain  
**Name of programme:** Erasmus MUNDUS PUEDES  
**Goals of the stay:** Undergraduate Student