

**EUROPEAN
CURRICULUM VITAE
FORMAT**



PERSONAL INFORMATION

Name Rodriguez Vargas, Bryan Ramiro
Address
Telephone
E-mail
Nationality
Date of birth

WORK EXPERIENCE

- Dates (from – to) January 2018 – November 2022
- Name and address of employer Mexican Materials Research Center (COMIMSA)
- Type of business or sector Research and Development
- Occupation or position held Post-graduate Professor | Welding Laboratory Coordinator
- Main activities and responsibilities Professor of Postgraduate courses in Welding Technology and active member in the academic group of design and analysis of welded joints in Fe-based and light alloys. The development of industrial and technological projects for the academic, manufacturing, and metallurgical sectors, as well as social projects for the appropriation of Science and Technology were part of my activities. In addition, I collaborated training of undergraduate and postgraduate students and technical staff through thesis advice, management of professional residences and training in various engineering topics. Additionally, I performed the Head of the Welding Laboratory, coordinating and developing characterization and evaluation services in diverse materials and welded joints, maintaining direct links with clients and suppliers of the national and international industrial and academic sectors.

- Dates (from – to) January 2016-November 2022
- Name and address of employer Autonomous University of Coahuila (U.A. de C.)
- Type of business or sector Education
- Occupation or position held Professor of Chemistry
- Main activities and responsibilities University Professor, as well as collaborator in the development and revision of the curricular structure. Author of experimentation manuals for the General Chemistry Laboratory and participant in the training of students for admission tests to the higher level

EDUCATION AND TRAINING

- Dates (from – to) November 2022 to October 2025
- Name of organization providing education and/or training Università degli Studi di Perugia | Polo Scientifico Didattico di Terni
 - Thesis Dissertation Sustainable mobility systems development (in progress)
 - Title of qualification awarded PhD in Industrial and Information Engineering
 - Level in national classification 3° ciclo QF-EHEA / 8° livello EQF (if appropriated)
- Dates (from – to) November 2021 to November 2025
- Name of organization providing education and/or training American Welding Society (AWS)
- Principal subject/occupational skills covered Trains welding professionals via classroom or field-based instruction and facilitates and oversees hands-on welder training.
- Title of qualification awarded Certified Welding Educator
- ID Certification: 2111009E
- Dates (from – to) January 2016 to December 2017
- Name of organization providing education and/or training Mexican Materials Research Center (COMIMSA)
 - Thesis Dissertation Microstructural evolution of the dissimilar join 2304 lean duplex stainless Steel and 2507 super duplex stainless steel welded by the GTAW process.
 - Title of qualification awarded Master's degree in Welding Technology
 - Level in national classification 2° ciclo QF-EHEA / 7° livello EQF (if appropriated)
- Dates (from – to) January 2015 to December 2015
- Name of organization providing education and/or training Mexican Materials Research Center (COMIMSA)
 - Thesis Dissertation Weldability of Duplex Stainless Steel joined by Friction Stir Welding
 - Title of qualification awarded Specialization in Industrial Welding Technology
 - Level in national classification (if appropriated)
- Dates (from – to) August 2009 to June 2014
- Name and type of organization providing education and training Autonomous University of Coahuila (U.A. de C.)
 - Thesis Dissertation Analytical methods for determining the properties of liquids
 - Title of qualification awarded Bachelor's degree in Chemical Engineering
 - Level in national classification 1° ciclo QF-EHEA / 6° livello EQF (if appropriated)

LANGUAGE

MOTHER TONGUE Spanish

OTHER LANGUAGES English

• Reading skills Excellent
• Writing skills Good
• Verbal skills Good

Italian

• Reading skills Basic
• Writing skills Basic
• Verbal skills Basic

TEACHING EXPERIENCE AND NATIONAL/INTERNATIONAL INTERNSHIPS

Professor of general, organic, and inorganic chemistry, physics, and math in high school and University; Post-graduated Professor in topics of the welding processes, materials characterization, heat treatments, and metallography seminar; two international academic stay at University of Padova (Padova, Italy) developing research projects; national academic stay at the National Polytechnic Institute (Mexico City); Coordinator and mentor of the Regional Conference on Science and Technology for the appropriation and inclusion of science and technology in vulnerable sectors of the population.

ORGANISATIONAL SKILLS AND COMPETENCES

Coordination and administration of people, projects and budgets; at work, in voluntary work (for example culture and sports) and at home, etc.

Since 2018, Thesis director for undergraduate and graduate students in welding, metallurgy and dental applications; coordinator of the advice and training program for admission to the higher level from 2011 to 2014; leader of project development of welded joints with applications in dental implantology with Dental School of Autonomous University of Coahuila; coordinator of financed projects for the communication of science and technology; Professor of the year 2022 award by the University-Company linkage Council; consulting, training and external services to companies and institutions in the metalworking, chemical, automotive and aeronautical areas.

TECHNICAL SKILLS AND COMPETENCES

With computers, specific kinds of equipment, machinery, etc.

Office, SOCRATIVE®, Khan Academy, Google Classroom, Microsoft Teams®, Moodle®; Scanning electron microscopy operation (TESCAN), NIS (optical microscopy and stereoscopy), IMAGEPRO® (phase quantification), MINITAB®. Development of hardness tests (HR, HB, HV, HK), chemical analysis through optical emission spectrometry and non-destructive testing (Visual Inspection/Penetrating Liquids).

ADDITIONAL INFORMATION

Scientific Production

- **Bryan Ramiro Rodriguez-Vargas**, Giulia Stornelli, Paolo Folgarait, Maria Rita Ridolfi, Argelia Fabiola Miranda Pérez and Andrea Di Schino. "Recent Advances in Additive Manufacturing of Soft Magnetic Materials: A Review". *Materials*, 2023, 16(16), 5610. <https://doi.org/10.3390/ma16165610>
- **Bryan Ramiro Rodriguez-Vargas**, Luciano Albini, Giulia Tiracorrendo, Riccardo Massi, Giulia Stornelli and Andrea Di Schino. "Effect of ultrafast heating on AISI 304 austenitic stainless steel". *Acta Metallurgica Slovaca*, 2023, 29(2), 104–107. <https://doi.org/10.36547/ams.29.2.1833>
- Giulia Stornelli, Luciano Albini, Paolo Emilio Di Nunzio, Giulia Tiracorrendo, **Bryan Ramiro Rodriguez-Vargas** and Andrea Di Schino. "Effect of ultrafast heating on AISI 441 ferritic stainless steel". *Acta Metallurgica Slovaca*, 2023, 29(1), 22–25. <https://doi.org/10.36547/ams.29.1.1713>
- Argelia Fabiola Miranda Pérez, **Bryan Ramiro Rodriguez-Vargas**, Luca Pezzato and Irene Calliari. "Corrosion Resistance of GMAW Duplex Stainless Steels Welds". *Materials*, 2023, 16(5), 1847. <https://doi.org/10.3390/ma16051847>
- Giulia Stornelli, Anastasiya Tselikova, Rolf Schmidt, **Bryan Ramiro Rodriguez-Vargas**, Guido Zucca and Andrea Di Schino. "The effect of vanadium micro-alloying on the microstructure of welded joints in high-strength structural steels". *MRS Advances*, 2023, IN-PRESS
- Giulia Stornelli, **Bryan Ramiro Rodriguez-Vargas**, Paolo Folgarait, M. Rita Ridolfi, Mirko Sgambettera and Andrea Di Schino. "Development of FeSi steel with increased Si content by Laser Powder Bed Fusion technology for ferromagnetic cores application: microstructure and properties". *MRS Advances*, 2023, IN-PRESS
- Miranda Perez, A.F.; **Rodríguez-Vargas, B.R.**; Cantón Croda, R.; Trejo García, P.M. "Heat input effect in a MULTIPASS AND double wire-GMAW welding of a thick structural steel for industrial applications" *MRS Advances*, 2022, 7, 1044–1048. <https://doi.org/10.1557/s43580-022-00398-w>
- Argelia Fabiola Miranda Pérez, Eduardo Hurtado, **Bryan R. Rodríguez-Vargas** and Humberto Hernández Belmontes. "Fracture morphology of GTAW welding of dissimilar duplex stainless steels exposed to H2S corrosion". *MRS Advances*, 2021, 6, 830–833. <https://doi.org/10.1557/s43580-021-00171-5>
- Victor Mercado, Raúl Pérez, **Bryan R. Rodríguez-Vargas**, J.C. Díaz-Guillén, H. Arcos-Gutiérrez, Jan Mayen, J.A Betancourt Cantera, A. Gallegos-Melgar, M. Hernández-Hernández and I. Garduño-Olvera. "Advances in Optical Microscopy Austenitic Characterization by Combination of Different Chemical Etchings". *Microscopy and Microanalysis*, 2020, 26, 2658–2660. <https://doi.org/10.1017/S1431927620022345>
- **Bryan R. Rodríguez**, Argelia Miranda, David González, Rolando Praga and Eduardo Hurtado. "Maintenance of the Austenite/Ferrite Ratio Balance in GTAW DSS Joints Through Process Parameters Optimization". *Materials*, 2020, 13(3), 780. <https://doi.org/10.3390/ma13030780>
- Acevedo, J., Morales, Cindy., **Rodriguez, Bryan**, & Cerna, Paola. "Microstructural and mechanical behavior study of 5052 aluminum alloy welded by FSW process". *MRS Advances*, 2019, 4, 3041-3052. <https://doi.org/10.1557/adv.2020.20>
- Calliari, C. Gennari, E. Hurtado Delgado, A. F. Miranda Pérez, **B. R. Rodriguez Vargas**. 2018. "Laser Welding of Plastically Deformed Lean Duplex Stainless Steel" *La Metallurgia Italiana* - n. 1, 5-10

Conference proceedings

- **Bryan Ramiro Rodriguez Vargas**, Giulia Stornelli, Argelia Fabiola Miranda Pérez, Andrea Di Schino, Irene Calliari, Mirko Pigato. "Effetto del calore fornito sulla qualità di un giunto saldato in acciaio inossidabile duplex 2205 mediante il processo di saldatura GMAW robotizzato". 12 Giornata Nazionali di Saldatura, Genova IT, 2023
- **Bryan Ramiro Rodriguez Vargas**, Argelia Fabiola Miranda Pérez and Jorge Eduardo Hernández Flores. "Microstructural evaluation of 304 stainless steel joints using robotic GMAW", CIPTUM, Morelia MX, 2022
- **Bryan Ramiro Rodriguez Vargas**, Argelia Fabiola Miranda Pérez, Luca Pezzato, Irene Calliari and Claudio Gennari. "Heat Input Influence on 2205 Duplex Stainless Steel joints using robotic GMAW Welding Process", ESSC&Duplex, Verona, IT 2022
- **B.R. Rodríguez Vargas**, A.F. Miranda Pérez, D.S. González González, E. Hurtado Delgado. 2018. "Microstructural Evolution of DSS Joints by GTAW Autogenous Processes Submitted in Bitter Environments (H2S)", 15th Forum of Engineering and Material Investigation; Morelia, Mich., Mex.

- **B.R. Rodríguez Vargas**, A.F. Miranda Pérez, E. Hurtado Delgado. 2018. "Effect of the Nickel Addition in DSS Joints by GTAW Processes", 19th Scientific Convention of Architecture and Engineering; La Habana, Cuba.
- **B.R. Rodríguez Vargas**, A.F. Miranda Pérez, E. Hurtado Delgado. 2017. "Influence of heat input on the microstructural evolution of the dissimilar join 2304 lean duplex stainless Steel and 2507 super duplex stainless steel welded by the GTAW process"; VI International Congress of Mechanical, Electrical, Electronic and Mechatronic Engineering, Querétaro, Qro., Mex

Intellectual Property

- Rodríguez-Vargas, B.R.; Morales-Bazaldúa, C.E., "Manual básico de operación del microdureómetro Wilson Hardness modelo Tukon 2500"; Copyright: Public Registry of Copyright MEXICO, Registration number: 03-2019-082011584200-01
- Rodríguez-Vargas, Bryan Ramiro; Morales-Bazaldúa, C.E., "Manual de operación básica recubridor de oro SPI-MODULE"; Copyright: Public Registry of Copyright MEXICO, Registration number: 03-2019-082011534300-01
- Rodríguez-Vargas, Bryan Ramiro; Morales-Bazaldúa, C.E., "Manual de operación del espectrómetro de emisión óptica"; Copyright: Public Registry of Copyright MEXICO, Registration number: 03-2020-110610174900-01
- Rodríguez-Vargas, Bryan Ramiro; Morales-Bazaldúa, C.E., "Manual de operación del durómetro Wilson Hardness Rockwell 2000"; Copyright: Public Registry of Copyright MEXICO, Registration number: 03-2020-110610161200-01
- Rodríguez-Vargas, Bryan Ramiro; Morales-Bazaldúa, C.E., "Manual de operación del estereoscopio Nikon SMZ745T"; Copyright: Public Registry of Copyright MEXICO, Registration number: 03-2020-110610143500-01

COURSES AND TRAINING

- Mexican Accreditation Entity A.C. (Saltillo, Coah., Mx.) ISO/IEC 17025:2017 Update (June 2018)
- National Pedagogical University (Saltillo, Coah., Mx). Group techniques based on generic skills for higher education (August 2018)
- Technological Institute of Saltillo (Saltillo, Coah., Mx). Development and appropriation of science and research (November 2018)
- Autonomous University of Nuevo Leon (Monterrey, Nuevo León., Mx). Phase quantification techniques using XRD (December 2018)
- Malvern Panalytical (Saltillo, Coah., Mx). X-Ray Diffraction Course at Empryan Series 3 (January 2019)
- Iberoamerican University (Mexico City, Mx.) Teaching and learning at the higher level and postgraduate (January 2020)
- Autonomous University of Coahuila (Saltillo, Coah., Mx). Writing as a tool for communicative competence in virtual learning spaces (October 2020).
- Mexican Materials Research Center. (Saltillo, Coah., Mx.). Introduction to the preparation of the exam part A, for the CWI inspector certification (April 2021)
- Mexican Materials Research Center (Silao, Guanajuato, Mx.) Non-Destructive Testing in Welding: Visual Inspection (I and II), Penetrating Liquids (October 2021)
- ANUIES. Introduction to digital skills (June 2022)

TERNI, ITALIA; 17/09/2024

(luogo e data)