
Raymundo Carlo Rodriguez Tejeda



Personal data

Date of birth	10 February 1982
Birthplace	Holguin, Cuba
Marital status	married
Citizenship	Cuban

Work experience

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| 2019 to today | Tejeda Ing. Büro für Planung und Projektmanagement
Wasser, Umwelt, Bau |
| 2021 to today | Scientific worker, University of Applied Sciences Magdeburg - Stendal, Germany |
| 2021 to today | Lessons of design of hydraulics structures, International Water Management Master Program, University of Applied Sciences Magdeburg - Stendal, Germany |
| 2020 to today | Lessons of drinking water plants and green energy, University of Tianjin, China |
| 2018 to 2020 | Project Manager of WATERMAS (ERASMUS + Project), University of Applied Sciences Magdeburg - Stendal, Germany |
| 2011 to 2018 | Professor of Hydraulic Engineering, University of Holguin, Cuba <ul style="list-style-type: none">• He has long-term experience in project management. He took part in a bilateral international education project with the University of Applied Science Magdeburg – Stendal from Germany.• He was the Head of the Competence Center of Resources Management in Holguin University.• Coordinator of the international project WATERMAS (ERASMUS +)• Coordinator of the collaboration with the University of Western, Canada |
| 2017 to today | Hydraulic Engineer
Hydraulic consulting of the company DIWI Consult (UK) Ltd <ul style="list-style-type: none">• Design of drainage of roads• Design of culverts• Design of bridges |

- Sediments transport models
- Flooding protection

2008 to 2011

Hydraulic Engineer

Enterprise of investigations and hydraulic projects Raudal, Holguín, Cuba.

- Design of dams
- Design of flooding protection
- Projects of organization of works
- Design of channels bridges
- Design of channels
- Design of culverts
- Flooding protection
- Rivers and underground modeling

2007 to 2008

Hydraulic Engineer

Company contractor of Hydraulic projects ESI DIP TRASVASES

- Supervisor of the construction of dams

Education

2001 - 2007 Studies as water management engineer at the University of Oriente in Santiago
2007 engineering degree
2011 – 2014 Degree in Hydraulic Engineering Master's degree from the University of CUJAE,
Havana, Cuba.

Scope of activities:

University courses:

Applied hydraulics, sediment transport, Flood protection and flood control, Numerical methods and computer application, Construction, design and operation of hydraulic structures i.e. weirs dams, spillways, culvert, bridges, open channel, SIG, water treatment for drinking propose, waste treatment, hydraulics machines, hydrologic, hydropower plants, physical models, Water management in the Caribbean on the example Cuba (Germany)

Numerical model tests:

Erosion and local scouring, channels and sluices, Contaminants transport underground and in rivers, pipes and system of distribution of water

Special Expertise:

Dams, spillway, sediment transport and local scouring, Culvert, bridges, flood protection and flood control, Construction, design and operation of hydraulic structures,

Open channel, physical models, renewable energy and project management.

Projects: more than 20 national and international hydraulic engineering projects

Membership: Member of the Chamber of Engineers of the State of Saxony - Anhalt No.27015

Member of the German Association for Water, Wastewater and Waste (DWA), No. 139259

Member of the Association of Engineers for Water Management, Waste Management and Cultural Engineering (BWK), No. 14990

Union of Engineers and Architects of the Construction of Cuba (UNAICC) and Vice President of the Hydraulic Society in Holguin.

Rewards: Graduate with a gold title (almost 2% of all students)
Best Young Professor at Holguin University in the Rector Reward (2013)
Better Hydraulic Engineer in Contribution to the Development of the Union of Engineers and Architects of Cuba Construction (UNAICC), during the period (2013 - 2017)
Title of high-level professional (2017)

Special skills and knowledge

Computer skills	Microsoft Office, AutoCAD, Civil 3D, Vestra, BIM, HEC-RAS, HEC-HMS, Hec-RasRim, ArcGIS, Matlab, Statgraphics, SAP, QGis, Feeflow, HY-8, Python and R
Language skills	Spanisch - Mother tongue Englisch – C1 German – B2
Hobbys	Language, History, Taichi

Project list

Period	Employing organization and your title/position. Contact info. for references.	Country	Summary of activities performed relevant to the Assignment	Status
March-Mai, 2022	INVER-Ingenieurbüro für Verkehrsanlagen GmbH	Germany	Drainage planning for the A 3 in Hünxe - drainage-technical site plan - the water technical calculations according to document 18 of the RE - and a cost calculation - design planning	In process
February-March, 2022	INVER-Ingenieurbüro für Verkehrsanlagen GmbH	Germany	Drainage planning for the A 52 in Gladbeck. Planning of a retention soil filter plant (RBFA) and a rainwater retention basin (RRB). Cost calculation. Design planning.	In process
November, 2021	Constance University of Applied Sciences Technology, Economics and Design	Germany	Development of a continuous hydrological model to analyze the long-term rainfall-runoff relationship with the projections of climate change models and taking into account aspects such as evapotranspiration and infiltration rate in the soil. Application of two-dimensional and/or three-dimensional hydraulic simulation models for flood mapping. Creation of a water use model with Hec-ResSIM, for example, that integrates the results of hydrological and hydraulic simulation models.	In process

			<p>Risk model with HEC-WAT, Hec - LifeSim and HEC-FDA.</p> <p>Simulation model of groundwater movement in the subsurface, with pollutant and temperature transport with Feflow.</p> <p>Evaluation of the results and preparation of the integration of the models into the GIS platform.</p>	
February, 2021	Narco Consultants	Dominic	<p>Technical and economic feasibility study and preliminary draft for the improvement of the North Coast Road (Douglas Charles Airport to Portsmouth) with 35 km, including the designing of 251 drains and 30 bridges, projection of climate change, hydrological analysis, flood modeling and flood protection modeling, sediment transport and studies of climate change.</p>	Complete
February, 2021	B & B Engineering GmbH	Germany	<p>Design of 3D piping systems. Independent supervision of a project part</p> <p>Construction of pipelines, support construction, creation of isometrics, etc.</p>	Complete
2019 - 2020	DIWI Engineering Hydraulic Designer	St. Vicent	<p>Rehabilitation of the North Windward coast road project - Preparation of drainage designs for 18.96 km, where include culverts and bridges design, climate change projection, hydrological analysis, flooding modelling and protection, sediment transport and climate change studies.</p>	Complete
2019	DIWI Engineering Hydraulic Designer	Grenada	<p>Grenada agricultural feeder roads phase 3- Preparation of drainage designs for 22.64 km of roads on Granada where include culverts and bridges design.</p>	Complete
2019	DIWI Engineering Hydraulic Designer	St. Vicent	<p>National Agricultural Feeder Roads Project - Preparation of drainage designs for 24 km of Secondary and Feeder roads on mainland St.</p>	Complete

			Vincent where include culverts and bridges design	
2018 - 2019	DIWI Engineering Hydraulic Designer	Grenada	Grenada Agricultural & Feeder Roads Project Phase 3 - Preparation of drainage designs for 39 km of Secondary and Feeder roads on Grenada & Carriacou where include culverts and bridges design.	Complete
2018	DIWI Engineering Hydraulic Designer	Grenada	Grenada Agricultural & Feeder Roads Project - Feasibility study for 20.77 km of roads on Grenada and Gouyave town, where include culverts and bridges design.	Complete
2018	DIWI Engineering Hydraulic Designer	St. Vincent	National Agricultural Feeder Roads Project - Preparation of drainage designs for 47.4 km of Secondary and Feeder roads on mainland St. Vincent where include culverts and bridges design	Complete
2018	DIWI Engineering Hydraulic Designer	St. Vincent	Preparation of drainage designs for 10 km of Asphalt Pavement roads to the Vigie Highway where include culverts and bridges design.	Complete
2016	E. D. Hill, LLC Oklahoma City, USA	USA	Flooding modelling. Designer	Complete
2016	E. D. Hill, LLC Oklahoma City, USA	USA	KOKH Parking Lot design. Designer	Complete
2016	E. D. Hill, LLC Oklahoma City, USA	USA	Flooding modelling. Designer	Complete
2011	Enterprise of investigations and hydraulic projects Raudal	Cuba	Study and project of the outake of the Birán Dam. General designer	Complete
2011	Enterprise of investigations and hydraulic projects Raudal	Cuba	Open channel studies and projects. Birán - Cueto - Baguano - Banes sections. General designer	Complete
2011	Enterprise of investigations and hydraulic projects Raudal	Cuba	Projects of culverts of great dimensions (San Vicente, Holguín, Matamoros and Cañada Ancha). General designer	Complete

Raymundo Carlo Rodriguez Tejeda
 Ernst – Thälmann Str.26
 39365 Eilsleben
 Germany

Telephone (private): **+4915779850304**
 Email: rrodrigueztejeda@gmail.com
 Skype: rrodriguez375

2010	Enterprise of investigations and hydraulic projects Raudal	Cuba	Project of wells of Gates of the Left Intake of the Mayarí Dam. Designer	Complete
2010	Enterprise of investigations and hydraulic projects Raudal	Cuba	Open channels bridges project (Guaro, Enmedio and Guayabo). Designer	Complete
2010	Enterprise of investigations and hydraulic projects Raudal	Cuba	Work of the entrance of the Dam of Birán. Designer	Complete
2009	Enterprise of investigations and hydraulic projects Raudal	Cuba	Application and calibration of software of wide international use (Drawing of the Upper Current Lines by means of Mathematical Modeling for the dams: Tres Palmas, Santa Clara, Nipe, Gibara, Bio and Limoncito). General Designer	Complete
2009	Enterprise of investigations and hydraulic projects Raudal	Cuba	Project for the organization of works (Esperanza and Seboruquito Dams). Designer	Complete
2008	Enterprise of investigations and hydraulic projects Raudal	Cuba	HCR Dam Project (Seboruquito Dam). Designer	Complete
2008	Enterprise of investigations and hydraulic projects Raudal	Cuba	Flood protection project (Enmedio River). General Designer	Complete
2008	Enterprise of investigations and hydraulic projects Raudal	Cuba	Dam repair projects. (Rincón and Birán Dams). Designer	Complete

List of publications

1. Rodríguez Tejeda R.C., Valdés Y.M. (2021) Environmental and Ecological Flows for Sustainability. In: Leal Filho W., Azul A.M., Brandli L., Lange Salvia A., Wall T. (eds) Clean Water and Sanitation. Encyclopedia of the UN Sustainable Development Goals. Springer, Cham. https://doi.org/10.1007/978-3-319-70061-8_115-1
2. Michael Max Bühler, Christoph Sebald, Diana Rechid, Eberhard Baier, Alexander Michalski, Benno Rothstein, Konrad Nübel, Martin Metzner, Volker Schwieger, Jan-Albrecht HARRS, Daniela Jacob, Lothar Köhler, Gunnar in het Panhuis, **Raymundo C. Rodríguez Tejeda**, Michael Herrmann and Gerd Buziek (2021). Application of Copernicus Data for Climate-Relevant Urban Planning Using the Example of Water, Heat, and Vegetation. Remote Sens. 2021, 13, 3634. <https://doi.org/10.3390/rs13183634>.
3. Bühler, M.M.; Sebald, C.; Rechid, D.; Baier, E.; Michalski, A.; Rothstein, B.; Nübel, K.; Metzner, M.; Schwieger, V.; Jacob, D.; Köhler, L.; in het Panhuis, G.; **Tejeda, R.**; Herrmann, M.; Buziek, G. Development of Low-Threshold Tools and Efficient Work Processes for Data Acquisition, Processing, Evaluation, and Application by Municipalities. Preprints 2021, 2021070496 (doi: 10.20944/preprints202107.0496.v1).
4. **Raymundo Rodriguez Tejeda**, Burkhard Kuhn (2020). Infrastruktur und Entwicklung der Wasserwirtschaft in Kuba. Teil 1: Entwicklungsphasen von 1492 bis 1999. KA Korrespondenz Abwasser, Abfall. ISSN 1866-0029
5. **Raymundo Rodriguez Tejeda**, Burkhard Kuhn (2020). Infrastruktur und Entwicklung der Wasserwirtschaft in Kuba. Teil 2: Entwicklungsphasen von 2000 bis 2019. KA Korrespondenz Abwasser, Abfall. ISSN 1866-0029
6. Steve W. Lyon *, Long Ho, Peter Goethals, Luis Dominguez Granda, Henrietta Hampel, Norris Lam, Indira Nolivos, Frido Reinstorf, Petra Schneider, **Raymundo C. Rodríguez Tejeda**, Raúl F. Vázquez (2019). Improving Water Management Education Across the Latin America and Caribbean Region. Manuscript ID: water-629190. Water Journal
7. Cano, Y., **Rodríguez, R.**, Soberats, J., Velázquez, R. Administration of the operation of biogas plants in the removal of pollutants. Ciencias Holguín. Revista trimestral. Vol.25, No.1, enero-marzo, 2019. ISSN 1027-2127.

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8. Frido Reinstorf¹, Petra Schneider¹, Henrietta Hampel², Raul F. Vazquez², Luis Dominguez-Granda³, Indira Yadria Nolivios Alvarez⁴, **Raymundo Rodriguez Tejada**⁵, Leslie Santos Roque⁵, Wilfredo Martinez⁶, Yaima Filiberto⁶, Steve W Lyon⁷ and Peter Goethals⁸, (1)University of Applied Sciences Magdeburg-Stendal, Dept. of Water, Environment, Building and Safety, Magdeburg, Germany, (2)University of Cuenca, Cuenca, Ecuador, (3)Escuela Superior Politécnica del Litoral, ESPOL, Facultad de Ciencias Naturales y Matemáticas, Centro de Agua y Desarrollo Sustentable, Guayaquil, Ecuador, (4)Escuela Superior Politecnica del Litora, Guayaquil, Ecuador, (5)University of Holguin, Holguin, Cuba, (6)University of Camaguey, Camaguey, Cuba, (7)Stockholm University, Physical Geography & Quaternary Geology, Stockholm, Sweden, (8)Ghent University, Laboratory of Environmental Toxicology and Aquatic Ecology, Gent, Belgium. Water Management and Climate Change in the Focus of International Master Programs in Latin America and the Carribean. American Geographical Union (AGU), Dec. 2018. <https://fallmeeting.agu.org/2018/>
 9. Frido Reinstorf, Petra Schneider, **Raymundo Rodriguez Tejada**, Leslie Santos Roque, Henrietta Hampel, Raul F. Vazquez (2018). Water Management and Climate Change in the Focus of International Master Programs in Latin America and the Carribean. DOI https://doi.org/10.1007/978-3-319-98681-4_1. Publisher Name Springer, Cham. Print ISBN 978-3-319-98680-7. Online ISBN 978-3-319-98681-4. eBook Packages Earth and Environmental Science
 10. Arencibia, K., Pérez, R., Trinchet, C., Díaz, B., **Rodriguez, R.**, López, E (2017). Strategies Aimed Contributing to the Renewable Sources of Energy from the University Processes. IEEE Xplore. Paper # IESC17 – 12. 2017. DOI: 10.1109/IESC.2017.8167481. Electronic ISBN: 978-1-5090-4914-1. Print on Demand(PoD) ISBN: 978-1-5090-4915-8.
 11. **Rodríguez, R.**, Blanco, A., Reinstorf, F. Mathematical models of the underground of Libertad neighborhood. Memoirs of the VIII Scientific International Lecture of Holguín's University. Published in DVD ROM with ISBN 978-959-16-3272-2. Editorial University. Holguín. Cuba. 2017.

12. Leyva, A., **Rodríguez, R.**, Suarez, T. Design of a sewage system for Libertad neighborhood in Holguín's city. Memoirs of the VIII Scientific International Lecture of Holguín's University. Published in DVD ROM with ISBN 978-959-16-3272-2. Editorial University. Holguín. Cuba. 2017.
13. Cano, Y., **Rodríguez, R.**, Girón, L. Potential of electric power of the sea currents at Gibara's coasts. Memoirs of the VIII Scientific International Lecture of Holguín's University. Published in DVD ROM with ISBN 978-959-16-3272-2. Editorial University. Holguín. Cuba. 2017.
14. Hernández, O., **Rodríguez, R.**, Cruz, M. Coefficients of the roughness in channels of projected concrete. Memoirs of the VIII Scientific International Lecture of Holguín's University. Published in DVD ROM with ISBN 978-959-16-3272-2. Editorial University. Holguín. Cuba. 2017.
15. **Rodríguez, R.**, Alegret, E. 2015. Comparison of the results in the calculation of the hydraulic losses for mediating friction the equations of Darcy – Weisbach's, Hazen – Williams's and Manning's. Memoirs of the VII Scientific International Lecture of Holguín's University. Published in DVD ROM with ISBN 978-959-16-2472-7. Editorial Universitaria. Holguín. Cuba.
16. **Rodríguez, R.**, Rodríguez, T. 2015. Solution of net of sewer system of the city of Gibara. Memoirs of the VII Scientific International Lecture of Holguín's University. Published in DVD ROM with ISBN 978-959-16-2472-7. Editorial Universitaria. Holguín. Cuba.
17. Reyes, A., **Rodríguez, R.**, Álvarez, A., 2015. Obtaining of Flood Maps in the River Jigüe of the City of Holguín Using Mathematical Models of Hydraulic Simulation. Memoirs of the VII Scientific International Lecture of Holguín's University. Published in DVD ROM with ISBN 978-959-16-2472-7. Editorial Universitaria. Holguín. Cuba.
18. **Rodríguez, R.**, Cano, Y. 2015. Contributions to the evaluation of small biogas plants and the improvement of the processes of filtrate of the same ones, in the municipality of Holguín. Memoirs of the VII Scientific International Lecture of Holguín's University. Published in DVD ROM with ISBN 978-959-16-2472-7. Editorial Universitaria. Holguín. Cuba.

Raymundo Carlo Rodriguez Tejada
Ernst – Thälmann Str.26
39365 Eilsleben
Germany

Telephone (private): **+4915779850304**
Email: rrodrigueztejeda@gmail.com
Skype: rrodriguez375

19. **Rodríguez, R.**, Casanella, F. 2013. Mathematical Modelling of pollutants through the underground. Memoirs of the VI Scientific International Lecture of Holguín's University. Published in DVD ROM with ISBN 978-959-16-2138-2. Editorial Universitaria. Holguín. Cuba.