

Renata Correia

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Date of birth: 09/09/1989

Nationality: Brazilian with valid work permit in the NL

EDUCATION

- MAR 2014 **M.Sc in Water Resources Engineering – Area: Mathematical modelling applied to fluid dynamics and hydraulics**
MAR 2016 Federal University of Parana (UFPR) Curitiba – Brazil, with *Graduate Research Fellowship (CNPq)*
Thesis title: “Topo-bathymetric data for hydrodynamic modelling with GIS support applied to the case study of Paraguay River.” Advisor: Dr Tobias Bleninger
- FEV 2010 **B.Sc in Environmental Engineering**
OCT 2013 Federal University of Parana (UFPR) Curitiba - Brazil
Thesis title: “Environmental scale analysis for mixing and transport processes in outfalls systems applied to the case study of Cartagena submarine outfall.” Advisor: Dr Tobias Bleninger
- AGO 2012 **Exchange period (Visiting Student and Researcher)**
FEV 2013 The University of Sheffield, Sheffield - United Kingdom, with *International Undergraduate Research Fellowship from Science Without Borders (SWB-CNPq)*
Development of studies of turbulence processes in incompressible flows over a backwards-facing step with quantitative analysis
Advisor: Dr. Wernher Brevis/Dr Tobias Bleninger

PROFESSIONAL EXPERIENCE

- OCT 2014 **Transports and Infrastructure Institute of Technology (ITTI) - Federal University of Parana (Curitiba -Brazil)**
NOV 2018 **Research Engineer**
- 2014-2015 **Graduate researcher**
Developed the Feasibility Studies of Paraguay River Waterway (dredging projects, hydrodynamic modelling for water levels and sediment transport, waterway designs) creating a strong relation with the Ministry of Transports and Energy, and USACE;
- 2015-2017 **Junior Engineer**
Performed an international study for port infrastructure and supply chain for the Brazilian Waterborne Agency (ANTAQ). My great contribution was the development of a mathematical/econometric forecast method for cargo trading to advice on perspectives for the public and private sector;
- 2017-2018 **Research Engineer**
- Performed studies of river and coastal modelling (flood risk, droughts, saltwater intrusion, coastal development), presented modelling results to assist in acquiring projects to the Institute;
 - Coordinated a Port Environmental Impact Assessment in Brazil. My achievements included reporting to contractors and environmental agencies, planning field surveys, also checking the execution and follow-up activities of a wide and multidisciplinary team of external consultants, engineers and students;
 - Experienced in planning environmental surveys, as well as writing research proposals, technical reports, scientific publishing and delivering presentations.

INTERNSHIPS

MAR 2013 **LACTEC – R&D Institute (Curitiba – Brazil)**

OCT 2013 **Intern**

Two major achievements can be highlighted: 1. Model setup and data assembly for a flooding system alert in Rio Grande Watershed through a cooperation between Deltares and CEMIG/LACTEC; 2. Spatial data analysis for environmental mapping in GIS.

JUL 2011 **Federal University of Parana (Curitiba – Brazil)**

JUL 2012 **Research Assistant**

Research project related to the sedimentation sludge processes for storage tanks designs in Wastewater Treatment Plants (WTP) within the Brazilian Program of Research in Sanitation (PROSAB). Performed field surveys, technical reports and scientific publishing.

COMPUTER SKILLS

CFD	DELFT 3D; HEC-RAS;	<i>Hydrodynamic and coastal modelling, sediment transport</i>
CAD/GIS	ArcGIS; QGIS; AutoCAD;	<i>General spatial analysis and representation</i>
Programming	Python; MatLAB; LaTeX, HTML	<i>Data analysis, visualization and manipulation</i>
Office	MS Office	<i>Project, team and resources management</i>

LANGUAGES

Portuguese	Native	
English	Advanced level proficiency	CEFR C1
Spanish	Working level proficiency	CEFR B2
Dutch	Beginner level (attending course)	CEFR A1

CONFERENCE PRESENTATIONS

SEPT 2018	Regulatory practices, competitive advantages and supply chain between the countries of Paraguay-Parana Waterway agreement of fluvial transport. Paraguay-Parana Waterway Seminar. Brazilian Waterborne Agency Seminar (ANTAQ). Brasília, DF - Brazil
JUN 2017	Feasibility Studies of Paraguay River Waterway. ROAD SHOW. Brazilian Department of Transports Infrastructure (DNIT) Seminar. Campo Grande, MS - Brazil
NOV 2015	Determination of Paraguay River drought levels using hydrodynamic modelling integrated with GIS. XXI Brazilian Symposium of Hydraulic Resources. Brasilia, DF - Brazil
OCT 2015	Hydrodynamic modelling for navigability assessment in a Brazilian stretch of Paraguay River. 9 ^o SOBENA – International Inland Navigation Development Seminar. Manaus, AM – Brazil.

INTERESTS

- 1 Hydraulic Engineering (rivers, ports, waterways and coastal engineering); Climate adaptation; Morphodynamics; Clean energy; Port planning and logistics; Water Resources management;
- 2 Numerical modelling; Statistics and probability; Programming; Machine learning.
- 3 Cooking; Cinema; Sci-fi; Kitesurf and water sports; Woodwork.

REFERENCES

Dr-Ing. Tobias Bleninger (English/German)

Professor - Federal University of Parana (UFPR), Curitiba, Brazil

bleninger@ufpr.br

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Dr Jörgen Leeuwestein (Dutch/English)

Senior Economic Officer - Embassy of Kingdom of the Netherlands in Brazil, Brasília, DF

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Dr Eduardo Ratton (English)

Professor - Federal University of Parana (UFPR), Curitiba, Brazil

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SELECTED PUBLICATIONS (other publications available on [*ResearchGate*](#))

- 1 Correia, R. Guarneri, H. Bleninger, T. **Improved bathymetry interpolation for hydraulic model development for the strongly meandering Paraguay River.** To be submitted in the *Brazilian Journal of Water Resources*.
- 2 Ratton, E.; Neto, D. N.; Waydzik, F.; Correia, R. **Methodology for environmental impact assessment of dredging services in waterways.** Brazilian Journal of Management and Sustainability (2018).
- 3 Guarneri, H.; Ratton, P.; Correia, R.; Bleninger, T. **Preliminary characterisation of the radius of curvature in vessels regarding inland waterways planning.** 26^o National Congress of Waterway Transportation, Naval and Offshore Construction. Rio de Janeiro, Brazil (2016).
- 4 Correia, R.; Ratton, P.; Guarneri, H.; Ratton, E.; Queiroz, E. **Evaluation of Paraguay-Parana Waterway fluvial infrastructure.** 26^o National Congress of Waterway Transportation, Naval and Offshore Construction. Rio de Janeiro, Brazil (2016).
- 5 Correia, R.; Guarneri, H.; Bleninger, T. Tomas, G. P.; Ratton, P.; Ratton, E. **Hydrodynamic modelling for navigability assessment in a Brazilian stretch of Paraguay River.** 9^o SOBENA – Inland Navigation Development Seminar. Manaus, Brazil (2015).