



PERSONAL SUMMARY

Highly motivated and innovative Coastal Engineer with expertise in coastal hydrodynamics & morphodynamics. I enjoy working in teams, collaborating with colleagues and solve complex coastal engineering problems.

EDUCATIONAL BACKGROUND

Ph.D. in Coastal Engineering	2020
University of Florida	
- Numerical modelling of morphodynamics in coastal environments	
M.Sc in Coastal Engineering	2017
Delft University of Technology (TU Delft), The Netherlands	
Erasmus Mundus Program in Coastal and Marine Engineering and Management (CoMEM)	
- Norwegian University of Science and Technology, Norway (Semester 1)	2015 (fall)
- TU Delft, The Netherlands (Semester 2)	2016 (spring)
- University of Southampton, The United Kingdom (Semester 3)	2016 (fall)
- Deltares/TU Delft, The Netherlands (Semester 4)	2017 (spring)
B.Sc in Civil Engineering (Honors)	2014
University of Moratuwa, Sri Lanka	

CAREER HISTORY

Postdoctoral Research Associate	
- College of Engineering, University of Georgia	2021- present
Project : Network for Engineering with Nature (N-EWN)	
Graduate Research Assistant	
- Department of Civil and Coastal Engineering, University of Florida	2018-2020
PhD thesis : Improving the modeling of onshore sandbar migration and beach recovery	
Internship	
- Deltares, The Netherlands	2017 (spring)
Masters thesis : Wave transformation in mangrove coasts, A model study using XBeach	
- Coastal Research Centre (FZK), Hannover, Germany	2016 (summer)
Analytical superposition of nonlinear waves in shallow water within a nonlinear Fourier transform using MATLAB	
Lecturer on Contract, University of Moratuwa, Sri Lanka	2017 & 2014-2015
- Hydraulic Engineering Division at the Department of Civil Engineering	
Visiting Lecturer	
- Colombo school of Construction and Technology (Affiliated with University of Salford, UK)	2015
- City and Guilds Level 6 modules in graduate diploma in Engineering at SEI Campus Sri Lanka	2015
Research Assistant	2014 March
- Tsunami vulnerability study of coastal region in Sri Lanka	
Trainee Civil Engineer	May-Oct 2012
- Urgent renovation works at Unity Container Terminal, Port of Colombo, Sri Lanka	

EXPERIENCES AND SKILLS

Numerical modelling

- Expert proficiency in numerical modelling with XBeach
- Proficiency in numerical modelling with Delft3D and SWASH
- Proficiency with Machine Learning models and applications

Model development

- Expert proficiency in implementation and development in XBeach and SWASH source codes
- Implementing a cross-shore process based morphodynamic model to study sandbar migrations in MATLAB

Computer programming skills

- Expert proficiency in programming with MATLAB and Fortran
- Proficiency in programming with Python
- Experience in working with supercomputer architecture and data handling

Field work experience

- Data collection using ADCP and drone imagery at Sapelo Island Estuarine Reserve, GA

NON-ACADEMIC QUALIFICATIONS

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| Mayor of the graduate student housing – Maguire village, University of Florida | 2019- 2020 |
| Junior treasurer - Civil Engineering Society (CES) - University of Moratuwa | 2013-2014 |

Debating

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| - Participation at Hulsdorf Debate, Sri Lanka Law College | 2012 |
| - Participation and Octo finalist at the X th NLS Debating Tournament - Bangalore, India | 2012 |

Scouting

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| - Participation to Sri Lanka Model United Nations, Colombo, Sri Lanka | 2004 |
| - Participation to SAARC Friendship Camp- Thimpu, Bhutan | 2002 |

PUBLICATIONS

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| Hewageegana V.H , A. Canestrelli, Numerical modeling of the influence of tides on cross-shore sediment dynamics of dissipative beaches under moderate wave conditions, <i>Continental Shelf Research</i> , https://doi.org/10.1016/j.csr.2021.104381 . | 2021 |
| - Hewageegana V.H and A. Canestrelli On the predictive skill of morphodynamic models for onshore sandbar migration <i>Earth Surf Processes and Landforms</i> . 2021. https://doi.org/10.1002/esp.5079 | 2021 |

POSTER PRESENTATIONS

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| - Hewageegana, V.H, "Wave Transformation through mangrove coasts – A model study using XBeach Surfbeat". Poster session presented at XBeachX conference, Delft Software Days 2017, Delft, NL | 2017 |
| - Hewageegana, V. H., and A. Canestrelli. "Numerical modeling of the influence of tides on beach morphodynamics." AGU Fall Meeting. 2018, Washington D.C. | 2018 |

ORAL PRESENTATIONS

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|---|------|
| - Hewageegana, V.H, Jayawardena, D.M.S.S, Ratnasooriya, A.H.R. "Tsunami Hazards: Energy Dissipation and Impact Mitigation Using Bio Shields" Civil Engineering Research Symposium , SL | 2014 |
| - Hewageegana, V. H., and A. Canestrelli. "Tidal influence on coastal morphodynamics" Science by the shore symposium 2018, Whitney Laboratory, St Augustine, FL | 2018 |
| - Hewageegana, V. H., and A. Canestrelli. "On the predictability of sandbar migration rates: Duck, NC case" 6th Young Coastal Scientists and Engineers Conference – Americas, Corvallis, OR | 2019 |
| - Hewageegana, V. H., and A. Canestrelli. "On the ability of 2D, quasi-3D and 3D numeric models to predict sandbar migration: The Duck, NC case" AGU Fall Meeting 2019, San Francisco, CA | 2019 |
| - Hewageegana V.H and A. Canestrelli "A simplified method to predict onshore sandbar migration: The Duck, NC case "Ocean Sciences meeting 2020, San Diego, CA | 2020 |
| - Hewageegana V.H and A. Canestrelli "Predicting sandbar migration using a phase resolving 3D numerical model" AGU Fall Meeting 2020, Virtual | 2020 |

WORKSHOPS AND SYMPOSIUMS

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| - XBeach advanced course, Delft Software Days 2017, Delft, Netherlands | 2017 |
| - DUNEX Coastal Processes and Engineering Training course, Field Research Facility, Duck, NC | 2019 |

PERSONAL DETAILS

Date of birth	December 11 th 1989
Gender	Male
Nationality	Sri Lankan

NON-RELATED REFEREES

Alberto Canestrelli, Ph.D
 Assistant Professor
 Department of Civil and Coastal Engineering
 University of Florida
alberto.canestrelli@essie.ufl.edu

Ap van Dongeren, Ph.D
 Specialist
 Coastal Morphodynamics
 Deltares, The Netherlands
ap.vandongeren@deltares.nl

