CURRICULUM VITAE

<u>1. PERSONAL INFORMATION</u>

Name	Dr. Mohammed Kandil El-Diasty, P.Eng.
Affiliation	Associate Professor of Geomatics Engineering,
	Department of Civil and Architectural Engineering,
	College of Engineering,
	Sultan Qaboos University, Muscat, Oman
Citizenship	Canadian
Date of birth	January 5, 1974 - Egypt.
Office	+968 24143759
E-mail	m.eldiasty@squ.edu.om & eldiasty@gmail.com

2. EDUCATION

2010	PhD, York University, Toronto, Canada.
2003	MASc, Ryerson University, Toronto, Canada.
1997	BSc, Mansoura University, Mansoura, Egypt.

3. PROMOTION

2021	Promotion to Full Professor, King Abdulaziz University (KAU), Saudia Arabia.
2016	Promotion to Associate Professor, King Abdulaziz University (KAU), Saudia Arabia.

4. RESEARCH EXPERIENCE

2021 – Present	Associate Professor, Geomatics Engineering, Department of Civil and Architectural
	Engineering, Conege of Engineering, Suitan Qaboos Oniversity.
April 2021 –	Full Professor , Hydrographic Surveying Department, Faculty of Maritime Studies,
September	King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia.
2021	
2016 - 2021	Associate Professor, Hydrographic Surveying Department, Faculty of Maritime
	Studies, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia. Duties
	include conducting research work in geodesy. GNSS positioning hydrographic
	surveying and development of new seemless short detum for Vingdom of Soudi
	surveying and development of new seamless chart datum for Kingdom of Saudi
	Arabia.
2017 - 2018	Associate Professor and Head, Hydrographic Surveying Department, Faculty of
	Maritime Studies, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia.
	Duties include administration and research work.
2013 2016	Assistant Professor Department of Hydrographic Surveying Eaculty of Maritime
2013 - 2010	Assistant Froiesson, Department of Hydrographic Surveying, Faculty of Martinie
	Studies, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia. Duties
	include conducting research work in geodesy, hydrographic surveying and
	development of new seamless chart datum for Kingdom of Saudi Arabia.
2017 – 2018 2013 – 2016	 include conducting research work in geodesy, GNSS positioning, hydrographic surveying and development of new seamless chart datum for Kingdom of Saudi Arabia. Associate Professor and Head, Hydrographic Surveying Department, Faculty of Maritime Studies, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia. Duties include administration and research work. Assistant Professor, Department of Hydrographic Surveying, Faculty of Maritime Studies, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia. Duties, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia. Duties include conducting research work in geodesy, hydrographic surveying and development of new seamless chart datum for Kingdom of Saudi Arabia.

2011 – 2013	Visiting Fellow in Geodetic Survey Division (Geomatics Canada), Natural Resources of Canada (NRCan), Government Canada, Canada. Duties included conducting research work in the groundwater storage change detection using temporal micro-gravity changes.
2010 – 2011	Post-Doc Fellowship in Earth & Space Science and Engineering Dep., York University, Canada. Duties included conducting research work in the temporal gravity change for Canada using the Canadian Gravity Standardized Network (CGSN).
2003 – 2010	Research Assistant in Earth & Space Science and Engineering Dep., York University, Toronto, Canada. Duties included conducting research work in Global- Positioning-System/Inertial-Navigation-System (GPS/INS) integration for hydrographic surveying and maritime navigation applications.
2002 - 2003	Research and Teaching Assistant in Civil Engineering Dep., Ryerson University, Toronto, Canada. Duties included conducting research work in Civil Engineering Department (Geomatics Engineering stream).
1999 – 2002	Research and Teaching Assistant in Civil Engineering Dep., Mansoura University, Mansoura, Egypt. Duties included conducting research work in Civil Engineering Department (Surveying Engineering stream).

5. RESEARCH GRANTS

2022	El-Diasty, M. and Gh. Alrawas "Development of a Low-Cost MEMS INS/GNSS
	Integrated System for LIDAR Mobile Mapping Applications." – Internal Grant,
	Sultan Qaboos University (SQU).
2021	El-Diasty, M. and R. Abdalla "Artificial Intelligence Based Machine Learning
	Method for Multibeam Data Cleaning." – Deanship Grant, Sultan Qaboos
	University (SQU).
2020	El-Diasty, M. "Evaluation of KSACORS-based Network GNSS-INS Integrated
	System for Saudi Coastal Hydrographic Surveys." – Distinct Research Study, King
	Abdulaziz University (KAU).
2020	El-Diasty, M. "Optimal Lowest Astronomical Tide Estimation using Maximum
	Likelihood Estimator with Multiple Ocean Models Hybridization." – Distinct
	Research Study, King Abdulaziz University (KAU).
2019	El-Diasty, M. "Accurate System for Coral Reef Monitoring in Red Sea Coastal
	Areas." – General Program, King Abdulaziz University (KAU).
2016	El-Diasty, M. "Hybrid Harmonic Analysis and Wavelet Network Model for Sea
	Water Level Prediction." – General Program, King Abdulaziz University (KAU).
2015	El-Diasty, M., S. Al-Harbi and S. Pagiatakis "Development of Saudi Continuous
	Chart Datum: Arabian Gulf Case." – Research Group Project, King Abdulaziz
	University (KAU).
2015	Elsobeiey, M., M. El-Diasty and S. Al-Harbi "Advanced Spectral Analysis of Sea
	Water level Changes." – General Program, King Abdulaziz University (KAU).
2014	El-Diasty, M. and S. Al-Harbi "An Accurate Tidal Height Prediction Using Wavelet
	Network Model (Phase 2)." – General Program, King Abdulaziz University
	(KAU).

2013	El-Diasty, M. and S. Al-Harbi "An Accurate Tidal Height Prediction Using Wavelet
	Network Model (Phase 1)". – General Program, King Abdulaziz University
	(KAU).
2013	El-Diasty, M. "Development of Real-Time PPP-Based GPS/INS Integration System
	for Hydrographic Surveys." – Distinct Research Study, King Abdulaziz
	University (KAU).

6. TEACHING EXPERIENCE

2021 - present	 Associate Professor of Geomatics Engineering, Department of Civil and Architectural Engineering, College of Engineering, Sultan Qaboos University. Course instructor and/or coordinator of: CIVL 3056 - Surveying CIVL 5111 - GPS & Civil Engineering Applications CIVL 5993 - Final Year Research Project ENGR 3006 - Industrial Training 1 (Surveying Engineering Training Course) CIVL 6711 - Geodesy and Map Projection (Master level course) CIVL 6911 - Geomatics Project Management (Master level course)
April 2021 – September 2021	 Full Professor of Geodesy in Hydrographic Surveying Department, Faculty of Maritime Studies, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia. Duties include teaching undergraduate hydrographic and geodesy courses in hydrographic surveying department. Course instructor and/or coordinator of: MSS 220 –Fundamentals of Surveying MSS 421 – Hydrographic Data Management and Presentation MSS 429 – Degree Project MSS 620 – Hydrographic Project Management (Master level course) MSS 605 – Hydrographic Data Management and GIS (Master level course)
2016 - 2021	 Associate Professor of Geodesy in Hydrographic Surveying Department, Faculty of Maritime Studies, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia. Duties include teaching undergraduate hydrographic and geodesy courses in hydrographic surveying department. Course instructor and/or coordinator of: MSS 220 –Fundamentals of Surveying MSS 312 – Estimation and Uncertainty Management (Least Squares Adjustment) MSS 311 – Positioning and Navigation I MSS 421 – Hydrographic Data Management and Presentation MSS 605 – Hydrographic Data Management and GIS (Master level course) MSS 620 – Hydrographic Project Management (Master level course) MSS 626 – Advanced Satellite Positioning (Master level course)
2013 - 2016	 Assistant Professor of Geodesy in Hydrographic Surveying Department, Faculty of Maritime Studies, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia. Course instructor and/or coordinator of: MSS 220 –Fundamentals of Surveying

	MSS 312 – Estimation and Uncertainty Management (Least Squares Adjustment)
	MSS311 – Positioning and Navigation I
	MSS 421 – Hydrographic Data Management and Presentation
	MSS 490 - Hydrographic Surveying Practice II
2003 - 2010	 Teaching Assistant in Earth & Space Science and Engineering Dep., York University, Toronto, Canada. Responsible of laboratory/tutorial teaching of: SC/EATS 2620 and SC/ENG 2120: Fundamentals of Surveying SC/EATS 2630 and SC/ENG 2130: Field Surveys SC/EATS 3620 and SC/ENG 3120: Adjustment Calculus
	 SC/EATS 3640 and SC/ENG 3140: Geodetic Surveys SC/EATS 4650 and SC/ENG 4150: Hydrography SC/EATS 4020: Time Series and Spectral Analysis SC/EATS 2030: Geophysics and Space Science
2002 – 2003	 Teaching Assistant in in Civil Engineering Dep., Ryerson University, Toronto, Canada. Responsible of laboratory/tutorial teaching of: CVL 323: Introduction to Geomatics CVL 352: Geomatics Measurement Techniques CVL 552: Data Modeling, Estimation and Analysis
1999 – 2002	 Teaching Assistant in Civil Engineering Dep., Mansoura University, Mansoura, Egypt. Responsible of laboratory/tutorial teaching of: Plan and topographic surveying Least squares adjustment Photogrammetry

7. PROFESSIONAL EXPERIENCES

I am legally recognized as a professional engineer (P.Eng.) by the association of Professional Engineers Ontario (PEO) under registration number (PEO#100146846). See the attached certificate.

2022	Geomatics Engineering Expert " Mapping of SQU Campus using Trimble LIDAR Mobile Mapping System (MX9). " A collaborative project with the National Survey Authority (NSA), Ministry of Defense, Oman.
2021	Geomatics Engineering Expert in the Saudi, Egyptian and Italian Teamwork representing the KAU Research and Consulting Institute " Consultation Services for Underwater Archaeological Surveying and Excavation along the Red Sea. " Project executed for Heritage Commission, Saudi Minister of Culture.
2021	Geodetic Expert External Reviewer for " Technical Auditing for GPS/GNSS Determination of Ellipsoidal Heights for KSA Vertical Reference System Definition)" Project executed for GCS, Riyadh, Saudi Arabia. All project deliverables were reviewed and recommendation for approval/non-approval for all deliverables was submitted.

2020	Geodetic Expert External Reviewer for "Technical Auditing for Precise Leveling
	Observations for Absolute Gravity, Gravity Calibration Baseline and Vertical
	Land Motion Monitoring for Tide Gauge stations (PLACT)" Project executed
	for GCS, Riyadh, Saudi Arabia. All project deliverables were reviewed and
	recommendation for approval/non-approval for all deliverables was submitted.
2020	Geodetic Expert representing the Geomatics Consulting Office, KAU Research and
	Consulting Institute "Topographic and Bathymetric (Topo-Bathy) Surveying and
	Mapping in WGS84 and SAVD datums." Project executed for DOOSAN
	company in Yanbu-4 Intake Water Project (IWP), Saudi Water Partnership
	Company.
2019	Geodetic Expert "Establishment of Faculty of Maritime Studies Tide Gauge
	Benchmarks (TGBMs)." Newly launched tide gauge.
2017	Geomatic Engineering Expert "Establishment of 3D geodetic GNSS network of
	control stations in Jeddah city for Stellate imageries bundle adjustment.' A
	collaborative project with Faculty of Environment and planning at KAU university.
2015	Geomatic Engineering Expert "Saudi maritime baseline stations setting out along
	Red Sea shoreline for three baseline points using RTK GNSS positioning
	technique." Executed for Red Sea Company.
2011	Groundwater storage changes detection using ground-based micro-gravity
	changes in Waterloo Moraine, Natural Resources Canada (NRCan).
2010	Gravity change detection and geoid change of Canada using primary Canadian
	Gravity Standardization Network (CGSN), Natural Resources Canada (NRCan).
2001 - 2002	Civil/Consulting Engineer in ARCHPLAN Egypt consulting office, Cairo, EGYPT.
	Duties included the design and supervision of the civil engineering work for Zezenia
	El-Asher Industrial and Residential New City.
1999-2001	Civil/Construction Engineer in BDH Real Estate Investments Company, Cairo,
	Egypt. Duties included constructing maintenance centre of BMW in El-Obour City,
	Industrial Zone, Egypt.
1997-1999	Civil/Structural Engineer in CADEC Consulting Office, Cairo, EGYPT. Duties
	included the structural design of many projects ranging from residential buildings,
	high rise buildings, and steel structures.

8. ADMINISTRATIVE RESPONSIBILITIES

2021 - Present	Timetable Coordinator (Civil Engineering Program), Sultan Qaboos University.
2021 - Present	Coordinator of Geomatics Engineering Master Program (Civil Engineering
	Program), Sultan Qaboos University.
2021 - Present	Member of Undergraduate Studies, Timetabling and Curriculum Committee
	(College of Engineering), Sultan Qaboos University.
2021 - Present	Member of Undergraduate Studies and Curriculum (Civil Engineering Program),
	Sultan Qaboos University.
2021 - Present	Member of Postgraduate Studies & Research (Civil Engineering Program), Sultan
	Qaboos University.
2021 - Present	Member of Quality Assurance and Accreditation Committee (Civil Engineering
	Program), Sultan Qaboos University.
2019 - 2021	Member of Accreditation Committee for Hydrographic Training Course of Category
	B. The program is recognized for 6 years from IHO.

2019 - 2021	Chair of the E-Learning and Distance Education Unit, Faculty of Maritime Studies,
	King Abdulaziz University
2019 - 2021	Chair of the Graduate Studies Unit, Faculty of Maritime Studies, King Abdulaziz
	University
2019 - 2020	Coordinator of the new "Hydrography and Surveying Engineering" program
	curriculum development committee.
2017 - 2019	Coordinator of the new "Master Program in Hydrography" program curriculum
	development committee. The program was officially approved on 2020.
2017 - 2018	Head of Hydrographic Surveying Department, Faculty of Maritime Studies, King
	Abdulaziz University
2017 - 2019	Member of Accreditation Committee for Hydrographic Surveying Program of
	Category A. The program is recognized for 6 years from IHO.
2013 - 2018	Chair of the Graduate Studies and Scientific Research Unit, Faculty of Maritime
	Studies, King Abdulaziz University
2013 - 2018	Coordinator of the KAU student scientific annual forum
2013 – Present	Member of the Faculty Accreditation Unit, Faculty of Maritime Studies, KAU.
2013 – present	Undergraduate Academic Advisor, Hydrographic Surveying Department, Faculty of
	Maritime KAU.
2014 - present	Member of the Student Training Committee.
2015 - present	Coordinator of the Cultural and Artistic Committee.
2015 - 2018	Chair of the Research and Innovation Unit.

9. MEMBERSHIP PROFESSIONAL AND SCIENTIFIC ASSOCIATIONS

- Registered as a Professional Engineer in the Province of Ontario (P.Eng., PEO#100146846).
- Member of the Egyptian Engineers Syndicate.
- Member of the Canadian Hydrographic Association (CHA).
- Member of the Canadian Institute of Geometrics (CIG), Canada.
- Member of the Canadian Geophysical Union CGU-Geodesy section

10. SCHOLARLY ASSESSMENTS

Acting as a reviewer in:

- Remote Sensing Journal
- Water journal
- Journal of Marine Science and Engineering
- IEEE access
- IEEE Transactions on Cybernetics
- Ocean Engineering
- Journal of Geodesy
- GPS solutions
- Sensors
- Measurement Science and Technology
- The Journal of Navigation
- Marine Geodesy Journal

- Sensors & Actuators: A. Physical
- Journal of Global Positioning System
- Measurement journal

<u>11. COMMUNITY SERVICES</u>

Applied geodesy is my major area of research and serves the following communities:

- Safety of live in the field of land navigation applications though the development of accurate land navigation system using GNSS/INS integrated systems.
- Safety of live in the field of maritime navigation applications though the development of accurate maritime navigation system using GNSS/INS integrated systems.
- Safety of live in the field of maritime navigation applications though the development of accurate nautical chart datums and sea water level prediction.
- The strategic management plan of water resources through the groundwater storage change detection using the micro-gravity measurements.
- The consultation services to the General Commission for Survey (GCS) for the major geodetic surveying projects.
- The consultation services to the commercial sector for the geodetic surveying projects.

12. PUBLICATIONS AND SCHOLARLY ACHIEVEMENTS

12.1. Articles Published in Peer Reviewed journals

- 1. El-Diasty, Mohammed, Mosbeh R. Kaloop, and Faisal Alsaaq. 2022. "Chart Datum-to-Ellipsoid Separation Model Development for Obhur Creek Using Multibeam Hydrographic Surveying" *Journal of Marine Science and Engineering* 10, no. 2: 264. https://doi.org/10.3390/jmse10020264.
- Kaloop, M. R., M. El-Diasty, J. W. Hu and F. Zarzoura (2022) "Hybrid Artificial Neural Networks for Modeling Shallow-Water Bathymetry via Satellite Imagery," IEEE Transactions on Geoscience and Remote Sensing, vol. 60, pp. 1-11, DOI: <u>https://doi.org/10.1109/TGRS.2021.3107839</u>.
- **3.** Kaloop, M. R, **M. Eldiasty**, J. W. Hu (2022) "Safety and Reliability Evaluations of Bridge Behaviors under Ambient Truck Loads through Structural Health Monitoring and Identification Model Approaches.", *Measurement*, Volume 187, 110234, DOI: <u>https://doi.org/10.1016/j.measurement.2021.110234</u>.
- **4.** El-Diasty, M. (2020) "Evaluation of KSACORS-based network GNSS-INS integrated system for Saudi coastal hydrographic survey.", Geomatics, Natural Hazards and Risk, Vol. 10, Issue. 1, pp 1738-1749. DOI: <u>https://doi.org/10.1080/19475705.2020.1799081</u>.
- El-Diasty, M. (2020) "Optimal Lowest Astronomical Tide Estimation using Maximum Likelihood Estimator with Multiple Ocean Models Hybridization.", ISPRS Int. J. Geo-Inf., Vol.9, Issue 5, Paper 327. <u>https://doi.org/10.3390/ijgi9050327</u>.
- El-Diasty, M. (2020) "A Real-Time KSACORS-based NRTK GNSS Positioning System for Saudi Coastal Navigation.", Australian Journal of Maritime & Ocean Affairs. <u>https://doi.org/10.1080/18366503.2020.1756163</u>.

- 7. El-Diasty, M. (2020) "Mapping seabed sediments for Sharm Obhur using multibeam echosounder backscatter data.", Model. Earth Syst. Environ. Vol. 6, Issue March 2020, pp.163-171; DOI:10.1007/s40808-019-00668-x.
- 8. El-Diasty, M. (2019) "Satellite-Based Bathymetric Modeling Using a Wavelet Network Model." ISPRS Int. J. Geo-Inf. 2019, 8(9), 405; DOI: 10.3390/ijgi8090405.
- El-Diasty, M, S. Al-Harbi and S. Pagiatakis (2019), "Development of Saudi continuous chart datum: Arabian Gulf case study.", Geomatics, Natural Hazards and Risk, Vol. 10, Issue. 1, pp 1738-1749. DOI: 10.1080/19475705.2019.1614682.
- El-Diasty, M, S. Al-Harbi and S. Pagiatakis (2018), "Hybrid harmonic analysis and wavelet network model for sea water level prediction.", Applied Ocean Research, Vol. 70, Pages 14-21. DOI: <u>10.1016/j.apor.2017.11.007</u>
- 11. El-Diasty, M. (2017) "Regional ionospheric modeling using wavelet network model." The Journal of Global Positioning Systems, Volume 15, Number 2, pp. 1–10. DOI: <u>10.1186/s41445-017-0007-y</u>.
- Mosbeh R Kaloop, Mohammed El-Diasty and Jong Wan Hu (2017) "Real-time prediction of water level change using adaptive neuro-fuzzy inference system" Geomatics, Natural Hazards and Risk, Vol. 8, Issue. 2, pp 1320-1332. DOI: <u>10.1080/19475705.2017.1327464</u>.
- Elsobeiey, M and M. El-Diasty (2016) "Impact of Tropospheric Delay Gradients on Total Tropospheric Delay and Precise Point Positioning." International Journal of Geosciences, Vol. 7, No. 5, pp 645-654, DOI: <u>10.4236/ijg.2016.75050</u>.
- 14. El-Diasty, M. (2016) "Groundwater storage change detection using micro-gravimetric technology." Journal of Geophysics and Engineering, Volume 13, Number 3, pp. 259–272. DOI: <u>10.1088/1742-2132/13/3/259</u>.
- 15. El-Diasty, M. (2015), "Development of Real-Time PPP-Based GPS/INS Integration System Using IGS Real-Time Service for Hydrographic Surveys." Journal of Surveying Engineering, Volume 142, Issue 2, 05015005:1-8. DOI: <u>10.1061/(ASCE)SU.1943-5428.0000150</u>.
- El-Diasty, M, S. Al-Harbi (2015), "Development of wavelet network model for accurate water *levels* prediction with meteorological effects.", Applied Ocean Research, Vol. 53, Pages 228-235. DOI: <u>https://doi.org/10.1016/j.apor.2015.09.008</u>
- El-Diasty, M. and Elsobeiey, M. (2015) "Precise Point Positioning Technique with IGS Real-Time Service (RTS) for Maritime Applications. Positioning.", Positioning, Vol. 6, No. 4, pp 71-80. DOI: <u>10.4236/pos.2015.64008</u>.
- El-Diasty, M. (2014), "An Accurate Heave Signal Prediction Using Artificial Neural Network.", Int. J. of Multidisciplinary and Current Research, Vol. 2, Issue 5, pp 627-643, DOI: <u>10.14741/Ijmcr/2/5/2014/19</u>.
- **19. El-Diasty, M.**, S. Pagiatakis, (2010) A Frequency-Dependent Efficient INS/GPS Impulse Response Model for Bridging GPS Outages. *The Journal of Navigation*, 63 (4), pp 627-643.
- **20. El-Diasty, M.**, S. Pagiatakis (2009) A Rigorous Temperature-Dependent Stochastic Modelling and Testing for MEMS-Based Inertial Sensors Errors. *Sensors, Vol.9*, No.11, pp. 8473-8489.
- **21. El-Diasty, M.**, S. Pagiatakis (2008) Calibration and Stochastic Modelling of Inertial Navigation Sensor Errors. *Journal of Global Positioning System*, Vol.7, No.2, pp. 170-182.
- 22. El-Diasty, M., A. El-Rabbany, A. and S. Pagiatakis (2007) An Accurate Nonlinear Stochastic Model for MEMS-Based Inertial Sensor Error with Wavelet Networks. *Journal of Applied Geodesy*, Vol. 1, No. 4, pp. 201–212.
- 23. El-Diasty, M., A. El-Rabbany, A. and S. Pagiatakis (2007) Temperature Variation Effects on Stochastic Characteristics for Low Cost MEMS-based Inertial Sensor Error. *Measurement Science and Technology*, Vol. 18, No.11, pp. 3321-3328.

- **24.** El-Rabbany, A. and **M. El-Diasty** (2004) An Efficient Neural Network-Based Model for Denoising MEMS-Based Inertial Data. *The Journal of Navigation*, Vol. 57, pp. 1-9.
- **25.** El-Rabbany, A., B. Agi, **M. El-Diasty**, G. Dias, and D. Coleman (2004) On the Development of the Integrated Navigation Chart System for Marine Navigation in Ice Covered Water. Lighthouse, *Journal of the Canadian Hydrographic Association*, Edition No. 65 Spring/Summer, pp. 5-10.
- 26. El-Diasty, M., and A. El-Rabbany (2003) Sequential Sea Ice Concentration Prediction for Marine Operations in Ice-Infested Waters. *International Hydrographic Review*, Vol. 4, No. 2, pp. 82-87.
- 27. El-Rabbany, A. and M. El-Diasty (2003) A New Approach to Sequential Tidal Prediction. *The Journal of Navigation*, Vol. 56, No. 2, pp. 305-314.

12.2. Books and Chapters

 El-Diasty, M., & Abdalla, R. (2022). Sensitivity Analysis and Modeling for DEM Errors. In R. Abdalla, M. El-Diasty, A. Kostogryzov, & N. A. Makhutov (Eds.), Time Series Analysis -New Insights. IntechOpen. https://doi.org/10.5772/intechopen.108788.

12.3. Conference Proceedings

- 1. El-Diasty, M. and M. Kaloop (2022) "A Frequency-domain Response Modeling for Strain Monitoring of Bridge Structure with Harsh Temperature Changes Effect.", NHICE-03, 3rd International Conference on New Horizons in Green Civil Engineering. Victoria, British Columbia, Canada. Monday, April 25-27, 2022.
- El-Diasty, M. (2017) "Integrity Analysis of Real-Time PPP Technique with IGS-RTS Service for Maritime Navigation.", Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-4/W5, 61-66, DOI: <u>https://doi.org/10.5194/isprs-archives-XLII-4-W5-61-2017, 2017</u>, *Peer Reviewed Conference Proceeding Full Paper*.
- El-Diasty, M. (2014) "An Accurate Heading Solution using MEMS-based Gyroscope and Magnetometer Integrated System (Preliminary Results)", ISPRS Ann. Photogramm. Remote Sens. Spatial Inf. Sci., II-2, 75-78, DOI: <u>https://doi.org/10.5194/isprsannals-II-2-75-2014</u>, <u>Peer Reviewed Conference Proceeding Full Paper.</u>
- 4. El-Diasty, M. (2013) Development of a PPP-Based GPS/INS Integration System for Hydrographic Surveys. Proceedings of the U.S. Hydro 2013 Conference, New Orleans, Louisiana, USA, 25-28 March. CD-ROM.
- 5. El-Diasty, M., S. Pagiatakis (2009) An Efficient INS/GPS Impulse Response Bridging GPS Outages. proceeding of the Toronto Model for the IEEE Conference Science and Technology Humanity. TIC-STH International _ for 2009, Ryerson University, Toronto, Ontario, Canada, September 26-27, Peer Reviewed Conference Paper.
- 6. El-Diasty, M., S. Pagiatakis (2008) Development of a Frequency Response INS/GPS System Model Based on LSSA for Bridging GPS Outage. Proceedings of the Institute of Navigation, Global Navigation Satellite Systems Conference, ION GNSS 2008, Savannah, Georgia, USA, 16-19 September, CD-ROM.
- 7. El-Diasty, M., A. El-Rabbany, S. Pagiatakis (2006) New Developments in State Estimation for INS/GPS Integrated Systems. Proceedings of the Institute of Navigation GNSS Meeting, ION GNSS 2006, Fort Worth, Texas, USA, 26-29 September. CD-ROM.

- 8. El-Diasty, M., A. El-Rabbany, S. Pagiatakis (2006) A Novel Wavelet Network-Based Nonlinear Stochastic Model for Inertial Sensor Error. Proceedings of the European Navigation Conference, ENC 2006, Manchester, UK, 7-10 May. CD-ROM.
- **9.** El-Diasty, M., A. El-Rabbany, S. Pagiatakis (2006) Stochastic Characteristics of Temperature-Dependent MEMS-Based Inertial Sensor Error. Proceedings of the Institute of Navigation National Technical Meeting, ION NTM 2006, Monterey, California, USA, 18-20 January 2006. CD-ROM.
- El-Rabbany, A. and M. El-Diasty (2003) Assessment of Three De-noising Models for MEMS-Based Inertial Sensors. Proceedings of the 11th IAIN World Congress, Berlin, Germany, 21-24 October.
- **11. El-Diasty, M.** and A. El-Rabbany, (2003) Adaptive De-noising Model for MEMS-Based Inertial Data. Proceedings of the Canadian Aeronautics and Space Institute 14th Symposium on Navigation, Montréal, Québec, Canada, 28-30 April. CD-ROM.
- **12. El-Diasty, M.** and A. El-Rabbany (2003) Sequential Tidal Prediction Using Artificial Neural Networks. Proceedings of the U.S. Hydro 2003 Conference, Biloxi, Mississippi, USA, 24-27 March. CD-ROM.
- **13. El-Diasty, M.** and A. El-Rabbany (2003) Adaptive Noise Reduction Model for MEMS-Based Inertial Sensors. Proceedings of the Institute of Navigation National Technical Meeting, ION NTM 2003, Anaheim, California, USA, 22-24 January. CD-ROM.
- 14. El-Diasty, M., A. El-Rabbany, and G. Auda (2002) Predicting Sea Ice Conditions for Marine Operations in Ice-Covered Waters. Proceedings of the Oceans 2002 MTS/IEEE Conference, Biloxi, Mississippi, USA, October 29-31, pp. 1234-1243. CD-ROM.
- **15. El-Diasty, M.** and A. El-Rabbany (2003) Performance Evaluation of Two Neural Network-Based Models for Predicting Sea Ice Concentration. Presented at the CMOS Congress 2003, Ottawa, Ontario, Canada, 2-5 June.

12.4. Conference Posters and Presentations

- 1. El-Diasty, M. and M. Kaloop (2022) "A Frequency-domain Response Modeling for Strain Monitoring of Bridge Structure with Harsh Temperature Changes Effect.", NHICE-03, 3rd International Conference on New Horizons in Green Civil Engineering. Victoria, British Columbia, Canada. Monday, April 25-27, 2022.
- 2. Pagiatakis, S., M. El-Diasty (2012) Improved g-dot signature in Canada by terrestrial gravity inversion. Paper presented at the 2012 CWRA-CGU National Conference, Geodesy Section, June 5-8, 2011, Banff, Alberta, Canada.
- **3.** Pagiatakis, S., M. **El-Diasty** (2012) Improved g-dot signature in Canada by terrestrial gravity inversion. Paper presented at EGU General Assembly 2012, Vol. 14, April 22 27, Vienna, Austria.
- 4. El-Diasty, M., S. Pagiatakis (2011) A Geoid-Based Vertical Reference Frame for Height Modernization in North America. Paper presented at the 13th GEOIDE Annual Scientific Conference, May 16-17, 2011, Toronto, Ontario, Canada.
- **5.** El-Diasty, M., S. Pagiatakis (2011) Improved Secular Gravity Variations (g-dot) in Canada with Hydrological Effect Reduction. Paper presented at 2011 CGU-CSAFM Assembly, Geodesy Section, May 15-18, 2011, Banff, Alberta, Canada.
- **6. El-Diasty**, M., S. Pagiatakis (2010) Development of a MEMS-based INS/GPS System for Maritime Navigation Application. Paper presented at 2010 CMOS/CGU Assembly, Geodesy Section, May 31-June 4, 2010, Ottawa, Ontario, Canada.

- El-Diasty, M. (2010) Development of a MEMS-based INS/GPS System for Maritime Navigation Application. Poster presented at AOLS 118th Annual General Meeting, Feb. 2010 Huntsville, Ontario, Canada.
- 8. El-Diasty, M., S. Pagiatakis (2009) Development of a Frequency Dependent INS/GPS System Response Model for Bridging GPS Outages. Paper presented at 2009 AGU/CGU Assembly, Geodesy Section, 24–27 May, 2009, Toronto, Ontario, Canada.
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12.5. Magazines

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