Dr. Mohamed A. Omar

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College of Science & Engineering
Mathematics
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Institutions of Higher Education Attended

PHD, Alexandria University.

MS, Alexandria University.

BS, Alexandria University.

Previous Teaching Positions

Associate Professor of Instruction, Texas State University. (September 2024 - Present).

Senior lecturer, Texas state university. (September 2021 - August 2024).

Professor, AAST. (January 1, 2018 - July 2023).

Lecturer, Texas state university. (September 2018 - 2021).

Associate Professor, AAST. (January 2014 - 2018).

Assistant Professor, AAST. (2009 - 2013).

Assistant Lecturer (instructor), AAST. (2002 - 2009).

GTA, AAST. (1998 - 2002).

Significant Professional Works

Conference Proceedings

"State-driven Architecture Design for Safety-critical Software Product Lines" *7th International Conference on Mechatronics Engineering (ICOM)***,** Malaysia, 30-31 Oct. 2019 pp.1–6 (2019)

Refereed Journal Articles

"Quality of service optimisation of device-to-device communications underlaying cellular networks". *IET Communications,*Vol.15(2) pp179-190*(2021)*

"Adaptive cooperative communications for enhancing QoS in vehicular networks". ***Physical Communication,*** vol 34 pp 285-294 (2019)

"Influence of thermal wave emitted by the cellular devices on the human Head", ***Microsystem Technologies,*** vol. 25(2), pp413-422 (2019)

"Reactive spectrum handoff combined with random target channel selection in cognitive radio networks with prioritized secondary users", Alexandria *Engineering Journal*, vol *57*(4), pp3219 – 3225 (2018)

"**Tsunami Generation and Propagation by a Curvilinear Stochastic Spreading Seismic Faulting in Linearized Water Wave Theory**", Journal of Earthquake and Tsunami, vol. 11(3), pp 175005-1 – 175005-46, (2017)

"Enhancing QoS in Vehicle-to-Infrastructure Approaches through Adaptive Cooperative Communications", The Sixth International Conference, on Advances in Vehicular Systems, Technologies, and Applications (VEHICULAR 2017) Nice, France 22-23 July (2017)

"**Tsunami Energy, Ocean-Bottom Pressure, and Hydrodynamic Force from Stochastic Bottom Displacement**", Pure and Applied Geophysics, vol. 174(3), pp1315 – 1330, (2017)

"**A stochastic thermoelastic diffusion interaction in an infinitely long annular cylinder**", Acta Mechanica, Vol. 227, pp1429-1443, (2016)

"**Near- and far-field tsunami amplitudes by a moving curvilinear stochastic submarine slide shape based on linearized water wave theory**", Ocean Engineering, Vol. 109, pp34-59, (2015)

"**A thermoelastic diffusion interaction in an infinitely long annular cylinder**", Archive of Applied Mechanics, vol. 84(7), pp. 953-965, (2014)

"Linearized Shallow-Water Wave Theory of Tsunami Generation and Propagation by Three-Dimensional Stochastic Seismic Bottom Topography", Research Journal of Applied Sciences, Engineering and Technology, Vol. 7(19), pp4035-4055, (2014).

"**Three-Dimensional Modeling of Tsunami Generation and Propagation under the Effect of Stochastic Seismic Fault Source Model in Linearized Shallow-Water Wave Theory"**, ISRN Applied Mathematics, , http://dx.doi.org/10.1155/2014/874230 , (2014)

"**Modeling of tsunami generation and propagation under the effect of stochastic submarine landslides and slumps spreading in two orthogonal directions"**, Ocean Engineering, Vol. 75, pp90-111, (2014)

"Modeling of Tsunami Generation and Propagation by a Spreading Seismic Faulting in two orthogonal directions in Linearized Shallow-Water Wave Theory", The International Conference on Mathematics, Trends and Development (ICMTD12), (2012)

"**The composite Milstein methods for the numerical solution of Ito stochastic differential equations"**, Journal of Computational and Applied Mathematics, vol. 235, pp 2277–2299, (2011).

"**The composite Milstein methods for the numerical solution of Stratonovich stochastic differential equations**", Journal of Applied mathematics and computations, vol. 215, issue: 2, pp 727-745, (2009).