



**Mr. Mwaffag Hussein Sharadga**

Instructor

MSc., Mathematics

Email: [mwaffag.sharadga@adpoly.ac.ae](mailto:mwaffag.sharadga@adpoly.ac.ae)

**Education**

**M.Sc.** in Applied mathematics

**B.Sc.** in mathematics

**Short Bio**

Mr. Mwaffag awarded his BSc degree from the Yarmouk University-Jordan (1982), he worked as a teaching assistant in the same university for two years. Then he worked as a Mathematics and Statistics instructor In the Second Faisal College, Jordan for 10 years (from 1984 to 2004) in teaching different mathematics and statistics courses in accordance with the teaching and learning program, as advised by the principal curriculum adviser. Over the period of his work as a teaching assistant he has gained a high level of skills and capabilities in teaching. After that he became as a General coordinator, Mathematics Leader, Organizing Seminars, and workshops for instructors to improve their approach to the planning, teaching and assessment across the curriculum. Participated in preparing the governmental exams for high schools. Managed all facilities and activities related to achieve student learning. From september,2004- June,2012, he joined Abu-Dhabi Educational Council (ADEC) as a General coordinator, Mathematics Leader to developing course curriculum as per accreditation and international standards, preparing Learners for the 21st century skills, critical & creative thinking, problem solving & innovation, communication & collaboration contributed to improving student results under the supervision of Centre for British Teachers (CFBT) in a project to raise teaching standards in Abu- Dhabi Educational council, UAE. Between Dec,2012- June 2015 he worked as Teaching Assistant and Researcher assistant with professor Syam and professor Refai. in UAE University, Al Ain, UAE, mathematical science department - college of science.

He is currently working as a math instructor in the IAT-AD polytechnic, Abu Dhabi -UAE since 2015, Teaching different mathematics and statistics courses. Effective presentation skills, both theoretical and practical. Committed to innovation in teaching and learning initiatives, with a Positive “can do” attitude and willingness to promote lifelong learning. Strong written and verbal communication skills, good interpersonal skills, and an ability to work with diverse groups of people. Coordinator for some math courses Participated in establishing the calculus help center. Developing course curriculum as per accreditation and international standards. In collaboration with Line manager to implement and continually improve curriculum, teaching, learning and assessment strategies. Responsible for planning, managing, and improving the learning of their own students, working with other team members. Support educational development and current with technology developments. Commitment to student-centered, project-based learning. He has a high degree of computer literacy and demonstrated ability to integrate technology into the learning environment and teaching methodology.

### Teaching Areas/Interests

- Precalculus, Calculus I, Calculus II
- Linear Algebra
- Differential Equations
- Numerical Methods for Engineers
- Advanced Engineering Math
- Applied Mathematics

### Research Interests

- Numerical analysis
- Approximation theory
- Continuation methods
- Numerical solutions of fractional, ordinary, and partial differential equations
- Spectral methods such as Tau, Galerkin, and Collocation methods
- Fractional Differentiation and its Applications
- Development in differential and integra-differential equations and their applications.
- His main research areas are, On Riemann -Liouville and Caputo Derivatives in fractional calculus.

### Recent Publications

- • Mohammed I. Syam, **Mwaffag Sharadga**, I. Hashim, A numerical method for solving fractional delay differential equations based on the operational matrix method, Chaos, solitons and fractals 147(2021) 110977.
- • Mohammed I. Syam, **Mwaffag Sharadga**, I. Hashim, spline method for solving fractional delay differential equations. Mathematics-1333967, submission received.

### Awards

- An Award for the best research in the UAE in 2008 (Life without Mathematics). Department of Mathematical Sciences, UAEU
- An Award of Abu Dhabi educational Zone for distinguished General coordinator, Mathematics Leader 2009.
- An Award for the best result in GSC exams at the level of UAE schools in 2009, 2010 and 2011.