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| <p style="text-align: center;"><b>Hassan Mohamed Rabie Hassan</b><br/> <b>hassan.rabie@inp.edu.eg</b><br/> <b>+201001779956</b></p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Job</b>                                                                                                                          | <ul style="list-style-type: none"> <li>▪ Assistant Professor, Data Scientist</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Major</b>                                                                                                                        | <ul style="list-style-type: none"> <li>▪ Operations Research and Decision Support</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Minor</b>                                                                                                                        | <ul style="list-style-type: none"> <li>▪ Decision Support</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Job</b>                                                                                                                          | <ul style="list-style-type: none"> <li>▪ Assistant Professor - Planning Techniques Center- Institute of National Planning, Egypt</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                                                     | <ul style="list-style-type: none"> <li>▪ 2022 (Assistant Professor)</li> <li>▪ 2016 (Lecturer)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Qualification</b>                                                                                                                | <ul style="list-style-type: none"> <li>▪ Ph.D. Operations Research and Decision Support - Faculty of Computers and Information - Cairo University - 2015.<br/>Developing an Intelligent Approach for Multi-Center Location Problem</li> <li>▪ M.Sc. Operations Research and Decision Support – Faculty of Computers and Information - Cairo University - 2008.<br/>A Simulation Model for Nonlinear Time Series Applications Using Neural Networks</li> <li>▪ B.Sc. Operations Research and Decision Support - Cairo University - 2001. Graduation Project:<br/>Decision Support System for Financial Resource Allocation and Community Needs Assessment for social fund for development.</li> </ul> |
| <b>Research Interests</b>                                                                                                           | <ul style="list-style-type: none"> <li>▪ Machine Learning, Data Mining and Data Science.</li> <li>▪ Text Mining –Natural Language Processing.</li> <li>▪ Social Network Analysis (SNA).</li> <li>▪ Operations Research, and Quantitative Methods.</li> <li>▪ Meta-Heuristic Optimization Techniques (PSO – GWO – GA - ...).</li> <li>▪ Applied Statistics.</li> <li>▪ Sustainable Development Goals (SDGs) interlinkages.</li> </ul>                                                                                                                                                                                                                                                                 |

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| Teaching       | <ul style="list-style-type: none"> <li>▪ Coursera Beta-Tester</li> <li>▪ Academic Master's Degree at Institute of National Planning: <ul style="list-style-type: none"> <li>▪ Quantitative Methods in Decision-Making (Linear Programming, Network Models, Decision Theory, Game Theory, Integer Programming).</li> <li>▪ Modern Scientific Methods (Data Mining, Text Mining, Network Analysis).</li> <li>▪ Applied Statistics and Probability.</li> <li>▪ Strategic Management and Future Studies.</li> <li>▪ Decision Support Systems.</li> </ul> </li> <li>▪ Professional Master's Degree at the National Planning Institute: <ul style="list-style-type: none"> <li>▪ Management and Decision Support Systems, Future Studies.</li> </ul> </li> </ul> |
| Membership     | <ul style="list-style-type: none"> <li>▪ 2021-Now: Member of the Quantitative Modeling Unit at the Institute.</li> <li>▪ 2018: Member of the Academic Content Management Committee of INP website.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Research Award | <ul style="list-style-type: none"> <li>▪ 2019/2020, Institute of National Planning Award "Best Individual Research"</li> <li>▪ 2019/2020, Member of the research team winning Institute of National Planning award "Best Collective Research"</li> <li>▪ 2018/2019, member of the research team winning Institute of National Planning award "Best Collective Research"</li> </ul>                                                                                                                                                                                                                                                                                                                                                                         |

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| <p><b>Research</b></p> | <ul style="list-style-type: none"> <li>▪ H.Rabie, "Forecasting CO2 Emissions in Egypt Using ARIMA and LSTM models: A Step Towards Sustainability", <i>The International Journal of Informatics, Media and Communication Technology</i> 2025 Vol. 7 Issue 2.</li> <li>▪ H.Rabie, "Mapping SDG Implementation in Egypt: A Cross-Country Comparative Analysis of Voluntary National Reviews Using Text Mining and Network Analysis", INP Working Paper, 2025.</li> <li>▪ H.Rabie, "Exploring the Interlinkages Between Education and Sustainable Development Goals An Advanced Text Mining and Network Analysis Approach", <i>Egyptian Journal of Development and Planning</i>, Volume 33, Issue 1, March 2025.</li> <li>▪ H.Rabie, &amp; M.Saleh, "A System Dynamics Model to study the Primary Education System in Egypt", INP Working Paper, 2024.</li> <li>▪ H.Rabie, " Bibliometric and Text Mining Analysis of SDGs Governance Research," <i>Egyptian Journal of Development and Planning</i>, 2024.</li> <li>▪ Maged Khashaba, H.Rabie and et al. "Governance of Emerging Technologies to Support Sustainable Development Comparative International and National Experiences", 2023</li> <li>▪ H.Rabie, et al, "A New Hybrid-Heuristic Approach for Vertex <math>p</math>-Median Location Problems," <i>International Journal of Advanced Computer Science and Applications (IJACSA)</i>, 2022.</li> <li>▪ H.Rabie, "Effect of Inertia Weight of PSO used to Solve the Continuous <math>p</math>-Center Location Problems," <i>Proceedings of the International Conference on Advanced Intelligent Systems and Informatics. AISI 2022</i>.</li> <li>▪ H.Rabie, "Particle Swarm Optimization to Solve Multi-Center Location Problem on Small Networks". <i>The International Journal of Informatics, Media and Communication Technology</i> 4, no. 2, 2022.</li> <li>▪ H.Rabie, "Sustainable Development Goals (SDGs) Interlinkages Analysis Based on Text Mining," <i>Egyptian Journal of Development and Planning</i>, 2022.</li> <li>▪ H.Rabie, "Particle Swarm Optimization and Grey Wolf Optimizer to Solve Continuous <math>p</math>-Median Location Problems," <i>Proceedings of the International Conference on Advanced Intelligent Systems and Informatics. AISI 2019. Advances in Intelligent Systems and Computing</i>, 2020.</li> <li>▪ Maged Khashaba, H.Rabie and et al. (2020), "Biotechnology applications and their role in supporting sustainable development in Egypt." <i>Planning and Development Issues Series</i>, No.342- INP.</li> <li>▪ Maged Khashaba, H.Rabie, et al. (2021), "The developmental and strategic dimensions of cybersecurity and its role in supporting digital</li> </ul> |
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|              | <p>and encrypted economies - the paths of the Egyptian experience in the light of global experiences." Planning and Development Issues Series, No. 326 - INP.</p> <ul style="list-style-type: none"> <li>▪ Maha El-Shall, H.Rabie, et al. (2020), "Policies and Mechanisms for Deepening the Egyptian Manufacturing Industries in the Light of the Fourth Industrial Revolution." Planning and Development Issues Series, No. 317 - INP.</li> <li>▪ Maged Khashaba, H.Rabie, et al. (2020), "Foreseeing the expected effects of some technological developments on development in Egypt and the alternatives to policies for dealing with them (by applying to artificial intelligence and blockchain)". Planning and Development Issues Series, No. 315 - INP.</li> <li>▪ El-Kassas, H.Rabie, et al, "Toward an Integrated Methodology for Modelling SDG 2030 for Egypt", Planning and Development Issues Series, INP, 2019.</li> <li>▪ A.ElRais, H.Rabie, et al, "Analytical Study of Egypt's position in Intra-Arab Trade using Network Analysis", Planning and Development Issues Series, INP, 2018.</li> <li>▪ H.Rabie, et al, "Particle Swarm Optimization algorithm for the continuous p-median location problems," 10th International Computer Engineering Conference, IEEE, 81-86, Dec 2014.</li> <li>▪ H.Rabie, et al, "A particle swarm optimization algorithm for the continuous absolute p-center location problem with Euclidean distance," International Journal of Advanced Computer Science and Applications (IJACSA), vol. 4, pp. 101-106, 2013.</li> <li>▪ H.Rabie, et al, "Applying Particle Swarm Optimization for the Absolute p-center Problem," International Journal of Computer and Information Technology, vol. 2, pp. 1010-1015, 2013.</li> <li>▪ H.Rabie, et al, "Exploring Input Selection for Time Series Forecasting," in DMIN, 2008, pp. 228-232.</li> </ul> |
| Publications | <ul style="list-style-type: none"> <li>▪ Maged Khashaba, Hassan Rabie, et al., "Data Ecosystem Report to Enhance Sustainable Development in Egypt," Central Agency for Public Mobilization and Statistics, United Nations Population Fund, and the Norwegian Embassy in Cairo, December 2018.<br/><a href="https://egypt.unfpa.org/en/publications/data-ecosystem-report-enhance-sustainable-development-egypt">https://egypt.unfpa.org/en/publications/data-ecosystem-report-enhance-sustainable-development-egypt</a></li> <li>▪ Hassan Rabie, "Corona, and 3D Printing", on the possible repercussions of the Corona crisis on the Egyptian economy, Issue No. (13), June 2020.<br/><a href="http://repository.inp.edu.eg/handle/123456789/4877">http://repository.inp.edu.eg/handle/123456789/4877</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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| Chapters in Books    | <p>Rabie, H.M. (2021). Particle Swarm Optimization and Grey Wolf Optimizer to Solve Continuous p-Median Location Problems. In: Hassanien, A.E., Darwish, A. (eds) <i>Machine Learning and Big Data Analytics Paradigms: Analysis, Applications and Challenges. Studies in Big Data</i>, vol 77. Springer, Cham. <a href="https://doi.org/10.1007/978-3-030-59338-4_21">https://doi.org/10.1007/978-3-030-59338-4_21</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Seminars & Workshops | <ul style="list-style-type: none"> <li>▪ 2021/2022 Text mining approach for SDGs interlinkage, in the international training workshop on: Use of Analytical and modeling tools tailored to country needs</li> <li>▪ 2018/2019: the interdependence between global and national goals, strengthening networking, and neutralizing contradictions between the sub-national goals for sustainable development. The second session during the workshop “Sustainable Development in Egypt: Mechanisms and Challenges of Implementation and the Expected Development Effects”</li> <li>▪ 2018/2019: “New Technologies: Blockchain &amp; Bitcoin”</li> <li>▪ 2017/2018: “3D Printing (Concepts and Applications)”</li> <li>▪ 2016/2017: “Big Data”</li> <li>▪ 2017: Annual International Conference - Institute of National Planning “Towards Supportive Education for Sustainable Development in Egypt. Participation through a presentation entitled “Needs Assessment for the Education Sector in Egypt”</li> </ul> |