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## **EDUCATION**

**Doctorate of Philosophy (Ph.D.) in Agricultural Economics (Spring, 2002)**, Department of Agricultural and Resource Economics, Colorado State University, Fort Collins, Colorado, U.S. Ph.D. dissertation titled “Returns and Spill-over of Colorado Agricultural Research – Computable General Equilibrium Model for Livestock”. March 1, 2002.

**Master of Science (M. Sc.) in Agricultural Economics (Fall 1992)** - Department of Agricultural Economics, King Saud University, Riyadh, Saudi Arabia, Thesis titled, “Economics of Dates processing in the Kingdom of Saudi Arabia, Linear Programming Case Study on the National Agricultural Development Company (NADEC)”. July 1, 1991.

**Bachelor of Agricultural Science (B. Sc.) in Agricultural Economics (Fall 1987)**, Department of Agricultural Economic and Agricultural Extension, College of Agriculture, with Honour Degree. Assuit University, Egypt. July 1987.

## **ADMINISTRATIVE EXPERIENCE/ SERVICES**

**United Arab Emirates University, College of Food and Agriculture, Department of Agribusiness Chair. August 2016 to August 2018.**

Tasks Successfully Completed Include:

- Supported the Agribusiness undergraduate program modification proposal. Modification proposal recommended an agricultural resource management hybrid program that meets the United Arab Emirates strategic priorities. The modified program was benchmarked to international standards applied by selected top international programs in the field globally. The program was reviewed by international experts Professor Prakash Singh, Professor Michael Poland, and Professor Ashock Mishra (All currently or previously Agricultural Economics Department Chairs in the United States). The proposed program will be the only program that offers carefully designed undergraduate program in agricultural resource management that meet the current and future needs for the United Arab Emirates.

- Supported the agribusiness department day-to-day administration tasks in connection to learning, research, and outreach such as curriculum development, support faculty members to secure research funding, and communication with the department stakeholders.
- Supported various College of Food and Agriculture initiatives and tasks such as in the College Strategic Plan to year 2020, internal and external reviews, faculty evaluation, and accreditation, and chaired college commercial committee and participated in research and graduate studies, faculty evaluation, and committee on Al Foaha farm development committees.
- Supported the department development Self Study Reports (SSR 2016-2017) following the university guidelines undergraduate programs periodical UAEU reviews.
- Supported the department activities and reporting to the Ministry of Higher Education Commission for Academic Accreditation (CAA 2018). The undergraduate program successfully received accreditation.
- Jointly with other department faculty members Participated on the college of food and agriculture management teams and the college council tasks and responsibilities.
- Coordinated the department course offering and organized students' academic advising, and internship including the new UAEU Academic advising software Degree Works<sup>®</sup>.
- Prepared with the faculty members the proposal for the Department of Agribusiness Master in Agribusiness Management. Proposal approved by the university administration.
- Recruited with the department faculty search committees new four faculty members (two at assistants professors and two instructors).
- Facilitated the department faculty members professional development activities in economic modeling, smart learning, and their travel to present at international conferences.

**United Arab Emirates University, College of Food and Agriculture, Department of Agribusiness Program Coordinator. August 2014 to August 2016.**

Tasks Successfully Complete include:

- Students recruitments activities such as participation at several college recruitments activities.
- Supported responses to the College of Food and Agriculture to the development of the college strategic plan.
- Supported curriculum and student learning outcome assessment tasks and recommended remedies for courses development.
- Supported the applications of new courses, program learning outcome assessment for to the College Committee of Curriculum and Program Assessment and participated on all committee's meetings and assessment activities.

- Supported activities in relation to the Agribusiness program for the CAA and the University Western Association of Schools and Colleges (WASC) accreditation standards.
- Coordinated the internship course AGRB 480-01 and AGRB 480-51 including securing the internship providers at government and non-government institutions, followed up the internship weekly student's evaluation as well as end of internship reports submission, grading, and evaluation.
- Advised and organized capstone course senior lecture series and graduation projects.

**United Arab Emirates University, College of Food and Agriculture, Department of Agribusiness Faculty Member. August 2013 to August 2014.**

- Developed syllabus, material, implemented and evaluated new course AGRB 392 Natural Resource and Environment Economics.
- Developed syllabus, course material, and evaluated new course AGRB 377 Principles of Economic Development.
- Supported the undergraduate program capstone and internship courses activities
- Supported the department tasks educations, research, and outreach to the government and other stakeholders. Example is workshop and symposium in economics and consumer awareness about organic agriculture and workshop on UAE food trade openness and tariff reduction.

## TEACHING

- **Associate Professor August 2012 – Present:** (8 years – 12 undergraduate and graduate courses). United Arab Emirates University. Al Ain. Teaching courses in Introduction to Agribusiness, Global Food Trade Food Trade, Agribusiness Marketing Management, Introduction to Natural Resource and Environment Economics, Food Sustainability and Health (course offered to the Department of Nutrition and Health Students), Agricultural Development Economics, Supervising Agribusiness Capstone Senior Project Course, Internship course coordinator for 2 years. Graduate Course in Global Food Supply Chain. Internship Course. Class size varies from 5 to 55 students.
- **Affiliated Faculty:** (2 years – 1 course). University of Northern Colorado at Greeley. August 2008 to January 2009. Teaching two sections undergraduate microeconomic course. The course applies economic concepts to deliver subjects such as supply and demand, consumer utility, production and costs, perfect competition, pure monopoly, resource allocation, public goods, income distribution and economic regulation. Average class size was 60 students.
- **Adjunct Faculty:** Washington State University (3 years – 2 courses). Department of Business and Economics in Vancouver Washington Campus. Teaching International

Trade and Finance for senior undergraduate and Master of Business Administration (MBA) students course ECON 470 January 2003 – June 2006. The course covers analysis and description of international trade flows; commercial policy; multinational firms, foreign exchange markets; open economy macroeconomics; international monetary systems. Courses offered to three Satellites campuses via video-conferencing in Vancouver, Wenatchee, and Richland in the state of Washington. Average class size 20.

- **Adjunct Faculty:** Washington State University (1 year– 2 courses). Department of Business and Economics in Vancouver Washington Campus. Microeconomics. Department of Business and Economics in Richland, Washington. This course analyses the individual behavior of individuals, consumers, and firms. The focus of the course was theoretical and economic applications as well as the empirical implications on business and consumers. ECON 301 spring 2005 – average class size 23 students.
- **Research/Teaching Assistant:** Department of Agricultural and Resource Economics, Colorado State University (August 1998 – March 2002). (3 years – 6 courses). Courses Include Agricultural Marketing undergraduate, Econometric, Agricultural International Trade, and Project Analysis and Microcomputer Application Intensive summer course. Average class size 30 students.

## **RESEARCH AND OUTREACH WHILE AT UAEU**

### **On-Going Funded Research Projects (Over 490,000 AED) (2016-2020)**

- Gathering evidence and supporting multi-stakeholder engagement on the role of diets and food systems in the prevention of obesity and non-communicable diseases in the United Arab Emirates funded by FAO – Food Systems Components – **70,000 AED**
- Animals Biosecurity – Disease Spread Modelling the Epi-and Economics – On-going UPAR **350,000**
- Technical, Economics, and Information Efficiency for Precision Agriculture (PA) Under United Arab Emirates Conditions - Funding, **365,000 AED** as Part of UAEU Program for Advanced Research (UPAR). On-going Experimental Plots at CFA Farm in Al Foaha.
- Food Deserts, the Lack of Access to Fresh Vegetables and Fruits in Abu Dhabi Emirate - Widening the Economics and Welfare Paradigm and Analysis – Funding **60,000 AED** – Summer Undergraduate Research Experience (SURE PLUS)- Research team includes undergraduate students and instructor.

### **Completed research project grants at United Arab Emirates University (UAEU) –400,000 AED) (2013-2017)**

- **National Research Foundation (NRF) research grant 333,000 AED:** The research goal is to study the biological, social, and economic impacts of climate change and appropriate

adaptations strategies in the United Arab Emirates (UAE) fisheries sector and to disseminate research results to relevant policymakers, practitioners, and UAE research communities. The study focused on coastal line fisheries and their socio-economic activities. This research involved research assistant's undergraduate students in project data collection and analysis, and follow up communication through visit by the fishermen associations to UAEU. Research outcomes included final reports, three publications, and two international conferences presentations. The research outreach activities included survey to the UAE fisheries businesses associations in Abu Dhabi and Al Sharjah and Al Fujairah Emirates.

- **Summer Undergraduate Research Experiences (SURE) Grant 40,000 AED:** The objective of this study is to examine the impact of Online Social Media (OSM) on consumers' attitudes and purchasing decision process in the food retailers' online shops of UAE. The specific objectives are to analyze factors that affect the consumers' attitude and purchasing decision-making processes. Deliverables of this project included final report, poster to be used for UAEU the student's undergraduate, an article published at the special issue on Food Security at the Journal Urban Sciences.
- **Seed Grant 20,000 AED.** The goal of the study is to identify gaps and offer options and alternative to address farmers and their communities' immediate needs for agricultural sustainable practices. These options and alternatives were selected to be politically acceptable, society sustainable, and economically feasible. Beneficiaries of such results include government officials, non-profit organizations, and farmers themselves were involved in the process of selecting initial set of sustainable agricultural practices. A research article was published and two undergraduate students' senior projects completed and presented to the Agribusiness department faculty members.

### **Community Services at United Arab Emirates University**

- Chair for the College of Food and Agriculture (CFA) Annual Festival (CFA Week) Committee. February, 2019
- Chaired the committee on Sheikh Zayed Day April 15, 2018. The event celebrated Sheik Zayed legacy on connection to the agriculture and the environment. Community members, government and non-profit organizations representatives, UAEU - College of Food and Agriculture students and faculty and staff attended the event.
- Facilitated joined workshop "Animal Biosecurity" and Transboundary Diseases Preparedness Framework with Abu Dhabi Food Control Authority, Animal Wealth Divisions Experts. February, 12<sup>th</sup>, 2018.
- Hosted Dr. Hector Hernandez, Assistant Professor of, Chemical Engineering Department of Chemical and Environmental Engineering. Dr. Hector delivered a lecture titled "Innovating the Agronomy: Unearthing cryptic Eco-genetic in the UAE agriculture ecosystem through biotechnology". The team also visited UAE Date Palm Research Unit and CFA farm in Al Foah March, 9<sup>th</sup>, 2017.

- Supported on-going research dissemination at UAE government agencies including the Ministry of Climate Change and Environment and Abu Dhabi Food Control Authority in relations to studies on international food trade and poultry biosecurity in UAE respectively.
- Hosted Barari company experts at both the Agribusiness days' events in 2016, and 2017.
- Co-organized conference at Ministry of Climate Change and Environment organizing committee member on Organic Agriculture and submitted to the ministry presentation and white paper on the joined study.

**Economist:** United States Department of Agriculture (USDA) – Animal and Plant Health Inspection Service (APHIS). January 2011 – February, 2012.

- Conducted research and provided subject matter expertise for the estimation of producer and consumer surplus due to introduction of hypothetical foot-and-mouth disease (FMD) outbreak in the U.S.
- Simulated a variety of FMD outbreaks using the North American Animal Disease Spread Model (NAADSM) including FMD outbreak response and eradication strategies. NAADSM development team included participants from the U.S. Canada, Mexico, Brazil, and Turkey.
- Performed economic analysis by coupling the epidemiological model outputs (i.e., supply shocks) with a partial equilibrium model for the agricultural sector to assess the economic impacts on the livestock and grain sectors.
- Instructed course participants in the development of cost parameters and methods for incorporating epidemiological model results in economic modeling in the “Introduction to Epidemiological Spread Modeling” course hosted by Colorado State University and Centers for Epidemiology and Animal Health (CEAH).
- Provided input to the plan for economic modeling for the National Bio and Agro-Defense Facility Updated Site-Specific Risk Assessment.

**Research Associate /Economist:** Department of Agricultural and Resource Economics (DARE), Colorado State University, December 2009 to the January 2011.

- Participated in study on the future of agriculture (crops and livestock) in Colorado including modeling the agricultural sector in Colorado using regional equilibrium displacement model.
- Collected previous studies, information, and data on economic budgeting for all crops and livestock products by eight selected watersheds in the state of Colorado.
- Created water budgets (inflow, consumptive use, outflow) for each of the eight selected river basins.
- Jointly simulated the equilibrium displacement model for various scenarios including future of competition between the agricultural sector and urban development sectors across

the state's river basins and Conservation Reserve Program (CRP) projected reductions and climate change scenarios.

- Published with others working papers, fact sheets, manuscripts to be published in professional journals and presented results to various government and nongovernment stakeholders.
- Supported Colorado State University – Department of Agriculture and Resource and USAID Afghanistan Irrigation Project. The project included tasks such as designing survey, water balance matrices, creating GIS maps for the project area, crops budgeting, and socio-economic analyses.
- With the department staff completed energy-water nexus presentations and report. Energy-water nexus is a project sponsored by the National Renewable Energy Laboratory (NREL), Golden - Colorado.

**Economist:** World Bank. April 2009 to January 2011. Joined World Bank team selected to study and estimate cost of the impacts of climate change in developing countries and of the needed adaptation measures.

- Conducted economics of climate change impacts analyses and climate change adaptation strategies in agriculture, energy, transportation, and hydro modeling and reporting of results at the global track level.
- Modeled and communicated analyses results with the World Bank stakeholders at both the global and country track levels.
- Communicated and presented analysis results to the project's stakeholders in Ghana case study country.
- Supported the link between the engineering and modeling components on one side and the local consultants' data collection, background information, and government involvement on the economics of climate change adaptations in all stages of the projects including synopsis and country reports.
- Analysed, summarized, and reported on infrastructural cost data to support the project's scenarios' analysis.
- Participated in climate change adaptations meetings and discussed results with the World Bank staff.
- Significantly involved in the Ghana case study including country consultancy visits and various presentations and publications.
- Participated on internal World Bank report on Ghana Water Resource Study.

**Economist:** National Agricultural Development Company (NADEC). Costing and Budgeting Department, Riyadh, Saudi Arabia, July 1990 to June 1995.

- Assisted cost and accounting manager for the company five projects cost accounting statements development.

- Conducted economic reporting and benefit-cost analyses on the company's marketing and supply chain management.
- Prepared the annual reports of the company's activities – budgets, cost, cash, and income statements – as well as trend analysis.
- Conducted economic feasibility studies for the company's new projects.
- Reviewed the ten years' strategy plan which is prepared by Arthur De' Little consulting firm.
- Evaluated employee performance with both mid-year and annual reports.

## **PROFESSIONAL DEVELOPMENT**

- Completed a course on Animal Disease Spread Modelling by Scotland's Rural College May, to July, 2020
- Participated at four of UAEU Center of Excellence in Teaching and Learning (CETL) courses in connection to SMART learning and courses on transformation to E-Learning 2017-2019.
- Completed Course on Advance Computable General Equilibrium Modelling. The Course was offered by 27 November to 1 December 2016.
- Certified by UAEU Center of Excellence in Teaching and Learning (CETL) considering a course titled "Smart Learning Leadership. May 2015
- Participated UAEU Center of Excellence in Teaching and Learning (CETL) considering a course titled IPAD for GenED faculty workshop
- Complete course of ERDAS Imagine and Image analysis intensive course at Colorado State University 2011.
- Completed Regional Input-Output Modelling System (RIMS II) User Workshop. Washington D.C. March 2008.
- General Algebraic Modeling System (GAMS), Fresco Colorado, Instructor Regents Professor Bruce A. McCarl from Texas A&M, June 2007.
- Completed Course title: MATLAB Fundamentals and Simulink Programming Techniques (ML 01). Seattle (Kirkland), WA, April 11 and 12 2004.
- Completed workshop on Simulation and Econometric to Analyse Risk (Simetar ®). Instructor Professor James Richardson, College Station, Texas A. & M, August 2006.
- Completed a Course Constructing the Government Technical Document: Essential Strategies and Skills. Pacific Northwest National Laboratory – U.S. Department of Energy. Richland, WA. June 2003.
- Completed ArcGIS courses titled Working with Spatial Analyst, ArcGIS spatial analysis, ArcGIS 9.2 Desktop Applications Fort. Broomfield, Colorado, Environmental Systems Research Institute (ESRI), Inc. 2007 – 2008).

## **SUPERVISION OF GRADUATE STUDENTS**



- Co-Supervised Mr. Ahmed Abdelrahman Mohamed Abdelrahman, Master in Environmental Science. Thesis titled “Effect of Feeding Frequency and Stocking Density on Tilapia Oreochromis Niloticus and Lettuce Lactuca Sativa Production in Aquaponics System Under United Arab Emirates Condition and Business Enterprise Analysis.” College of Science. United Arab Emirates University. Thesis defended May 2018.
- Serving as an external examiner in a Ph.D. committee for Mr. Radhwan Abbas Yousif Sani. Department of Electrical, Electronics and Computer Engineering, College of Engineering. University of Sharjah. United Arab Emirates University.

## **PUBLICATIONS (54 Publications)**

1. **Fathelrahman**, E. M., El Awad, A. I., Yousif Mohamed, A. M., Eltahir, Y. M., Hassanin, H. H., Elfatih Mohamed, M., & LK Hoag, D. (2020). Biosecurity Preparedness Analysis for Poultry Large and Small Farms in the United Arab Emirates. *Agriculture*, 10(10), 426.
2. **Fathelrahman**, E. M., Hussein, K. A., Paramban, S., Green, T. R., & Vandenberg, B. C. (2020). Chlorophyll-a concentration assessment using remotely sensed data over multiple years along the coasts of the United Arab Emirates. *Emirates Journal of Food and Agriculture*, 345-357.
3. **Fathelrahman**, E., Neumann, E., Hussein, M., Jalil, A., Hassan, F., Dirir, A., & Muhammad, S. (2019, November). Unmanned Aerial Vehicle (UAV) Imagery and Manual Sampling for Parasitic Weed Recognition and Measurements. *IEEE Xplore* (pp. 1-4). IEEE.
4. **Fathelrahman**, E., & Basarir, A. (2018). Use of Social Media to Enhance Consumers’ Options for Food Quality in the United Arab Emirates (UAE). *Urban Science*, 2(3), 70-78
5. **Fathelrahman**, Eihab, Khalid Siddig, Saif Al-Qaydi, Safdar Muhammad, and Rafi Ullah Tasbih Ullah. "Options for maintaining fishery production in the United Arab Emirates due to climate change adaptation strategies." *Emirates Journal of Food and Agriculture* (2018): 17-28. DOI : <https://doi.org/https://doi.org/10.9755/ejfa.2018.v30.i1.1590>
6. Degefa, Berhanu Adenew, Safdar Muhammad, and Eihab **Fathelrahman**. "Market acceptability of dried dates at the unripe “Bisr” stage in United Arab Emirates." *Emirates*

- Journal of Food and Agriculture* (2017): 674-684. DOI : <https://doi.org/https://doi.org/10.9755/ejfa.2017.v29.i9.80>
7. **Fathelrahman**, Eihab, Mohamed Gheblawi, Safdar Muhammad, Emily Dunn, James C. Ascough, and Timothy R. Green. "Optimum returns from greenhouse vegetables under water quality and risk constraints in the United Arab Emirates." *Sustainability* 9, no. 5 (2017): 719. DOI: <https://doi.org/10.3390/su9050719>.
  8. Muhammad, Safdar, Eihab **Fathelrahman**, and Rafi Ullah Tasbih Ullah. "The significance of consumer's awareness about organic food products in the United Arab Emirates." *Sustainability* 8.9 (2016): 833. DOI : <https://doi.org/10.3390/su8090833>
  9. **Fathelrahman**, E., Muhammad, S., 2016. Food Policy and Food Security Challenges in the Middle East and North Africa Region. Reference Module in Food Sciences. Elsevier, pp. 1–12. ISBN: 9780081005965. DOI : <http://dx.doi.org/10.1016/B978-0-08-100596-5.03308-4>
  10. Hussein, A., **Fathelrahman**, E., & Fadel, M. (2016). Biosecurity model design for United Arab Emirates (UAE) poultry farms-avian influenza example. *The Business & Management Review*, 7(3), 108.
  11. **Fathelrahman**, E. (2016). Capacity building and climate change adaptations for the fisheries in United Arab Emirates. *The Business & Management Review*, 7(3), 120.
  12. **Fathelrahman**, Eihab, Ahmed Hussein, Safdar Muhammad, and Sherin Sherif. "Supply and Demand for Fresh Locally Produced Poultry Products in United Arab Emirates." *Journal of Food Distribution Research* 46, no. 1 (2015). <https://EconPapers.repec.org/RePEc:ags:jlofdr:198995>
  13. Muhammad, Safdar, Eihab **Fathelrahman**, and Rafi Ullah Tasbih Ullah. "Factors affecting consumers' willingness to pay for certified organic food products in United Arab Emirates." *Journal of Food Distribution Research* 46, no. 1 (2015): 37-45. <https://EconPapers.repec.org/RePEc:ags:jlofdr:199045>
  14. **Fathelrahman**, Eihab, Aydin Basarir, Mohamed Gheblawi, Sherin Sherif, and James Ascough. "Economic risk and efficiency assessment of fisheries in Abu-Dhabi, United Arab Emirates (UAE): A stochastic approach." *Sustainability* 6, no. 6 (2014): 3878-3898. DOI : <https://doi.org/10.3390/su6063878>

15. **Fathelrahman**, Eihab, Safdar Muhammad, Sidiga Washi, Doaa Skaik, and Sherin Sherif. "Dairy Product Trade Potentials between Gulf Cooperation Council Countries, European Union Selected Countries and the United States." *Journal of Food Distribution Research* 45, no. 1 (2014). <https://ageconsearch.umn.edu/record/164548?ln=en>
16. **Fathelrahman**, Eihab, Amalia Davies, Stephen Davies, and James Pritchett. "Assessing climate change impacts on water resources and Colorado agriculture using an equilibrium displacement mathematical programming model." *Water* 6, no. 6 (2014): 1745-1770. DOI: <https://doi.org/10.3390/w6061745>
17. **Fathelrahman**, Eihab, Sherin Sherif, and Dana LK Hoag. "Small Ruminant Production System Efficiency under Abu-Dhabi, United Arab Emirates Arid Land Conditions." *Agriculture* 4, no. 4 (2014): 288-307. <https://EconPapers.repec.org/RePEc:gam:jagris:v:4:y:2014:i:4:p:288-307:d:43317>
18. Sherif, S., S. Al-Shorepy, A. Al-Juboori, and E. **Fathelrahman**. "Sustainability of Sheep and Goat Production Systems under United Arab Emirates' Arid Land Constraints." *APCBEE Procedia* 8 (2014): 236-241. DOI: <https://doi.org/10.1016/j.apcbee.2014.03.033>
19. Ascough II, James C., Eihab M. **Fathelrahman**, and Dana L. Hoag. "Using Response surface Methodology for economic and environmental Trade-offs at the Farm Level." *Air, Soil, and Water Research* 6 (2013): 73. DOI : <https://doi.org/10.4137/ASWR.S11697>
20. **Fathelrahman**, Eihab M., James C. Ascough II, Dana L. Hoag, Robert W. Malone, Philip Heilman, Lori J. Wiles, and Ramesh S. Kanwar. "Continuum of risk analysis methods to assess tillage system sustainability at the experimental plot level." *Sustainability* 3, no. 7 (2011): 1035-1063. DOI: <https://doi.org/10.3390/su3071035>
21. **Fathelrahman**, Eihab M., James C. Ascough, Dana L. Hoag, Robert W. Malone, Philip Heilman, Lori J. Wiles, and Ramesh S. Kanwar. "Economic and stochastic efficiency comparison of experimental tillage systems in corn and soybean under risk." *Experimental Agriculture* 47, no. 01 (2011): 111-136. DOI : <https://doi.org/10.1017/S0014479710000979>
22. Ascough, J. C., A. A. Andales, L. A. Sherrod, G. S. McMaster, N. C. Hansen, K. C. DeJonge, E. M. **Fathelrahman**, L. R. Ahuja, G. A. Peterson, and D. L. Hoag. "Simulating landscape catena effects in no-till dryland agroecosystems using GPFARM." *Agricultural Systems* 103, no. 8 (2010): 569-584. DOI : <https://doi.org/10.1016/j.agry.2010.06.005>

23. Hoag, D. L. (Ed.). (2009). Applied risk management in agriculture. CRC Press. Chapter 11.: Step 6: Determining the Likelihood of Outcomes; Catherine Keske, Dana Hoag, Eihab **Fathelrahman**, and Jim Ascough. ISBN 9781439809730-CAT# K10486
24. Hoag, D. L. (Ed.). (2009). Applied risk management in agriculture. CRC Press. Chapter 12.: Step 7: Choose the "Best" Risk Management Alternatives; Dana Hoag, Eihab Fathelrahman, and Jim Ascough. ISBN 9781439809730-CAT# K10486
25. J. C. Ascough II, ELM. **Fathelrahman** and G.S. McMaster (2008). "Insect Pest Models and Insecticide Application." In Encyclopedia of Ecology, edited by Sven Erik Jørgensen Brian D. Fath, Academic Press, Oxford, 2008, PP 1978-1985. ISBN: 9780080931166
26. K. Al- Hamoudi, E. Aboellwfa, and Eihab **Fathelrahman**, "Optimum Stages Plan of Dates Processing Factories in the Kingdom of Saudi Arabia A Case-Study of the Factory of the National Agricultural Development Company - NADEC." *Journal of King Saud University*, Vol. 5 Agricultural Science., pp. 23 - 53. February 1993.
27. K. Al- Hamoudi E. Aboellwfa, and Eihab **Fathelrahman** "Using Linear Programming to Achieve Optimum plan of NADEC's Dates Factory." *Egyptian Journal of Agricultural Economics*, Vol. 2. No. 1, pp. 241- 265. Alexandria, Egypt., March 1992.

**Government Reports, Conferences Proceeding Papers, Posters, and Conferences Abstracts.**

28. Mohamed Elfatih Hamad, Eihab Mohamed **Fathelrahman**, Adil Ismail El Awad, Mohammed Al Aidaros, Ahmed Mohamed Yousif Mohamed, Oum Keltoum Bensalah, Meera Saeed Mohamed, Hussein Hosiny Hussein Hassanin, Yassir Mohammed Eltahir Ali, Hamid Ragban Orban. Poultry Biosecurity "Best Practices" Survey and Analysis in the United Arab Emirates. Working Paper
29. Safdar Muhammad and Eihab **Fathelrahman**. (2016) Report prepared for the Ministry of Water and Environment. Department of Agribusiness and Consumer Sciences - College of Food and Agriculture, United Arab Emirates University. Impact of Tariff Reduction Simulation using world Integrated Simulation Trade Solution (WITS) for Selected Vegetables (Tomatoes, Lettuce and Cucumber) in United Arab Emirates. Report

Submitted to the UAE Ministry of Climate Change and Environment Formerly Ministry of Agriculture and the Environment.

30. **Fathelrahman**, Eihab. Member of the Global Track Study "The Economics of Adaptations to Climate Change". World Bank Report  
<http://www.worldbank.org/en/news/feature/2011/06/06/economics-adaptation-climate-change>
31. **Fathelrahman**, Eihab. Ghana Case Study "The Economics of Adaptations to Climate Change". World Bank Report.  
<http://documents.worldbank.org/curated/en/278431468337213682/pdf/762420V10ESW0P00Box374367B00PUBLIC0.pdf>
32. Davies, Stephen, **Fathelrahman**, Eihab, Davies, Amalia, and James Pritchett .  
"Agriculture economic impact of energy alternatives and climate change in Colorado: evidence from an equilibrium displacement approach." Economic development report (Colorado State University. Dept. of Agricultural and Resource Economics); EDR 11-01 (2011).
33. Ascough II, J.C., **Fathelrahman**, E.M., Vandenberg, B.C., Green, T.R., Hoag, D.L. (2009). "Economic Risk Analysis of Agricultural Tillage Systems Using the SMART Stochastic Efficiency Software Package". World IMACS Congress and MODSIM09 International Congress on Modelling and Simulation. p. 463- 469 (Proceedings/Symposium). Conference Proceeding Paper.
34. **Fathelrahman**, Eihab, Dana Hoag and Stephen Davies. The Impact of Research Returns Across Time and Space: A Computable General Equilibrium Study of Cattle Research in Colorado. AAEE, WAEA, and CAES Joint Annual Meeting in Portland, OR. July 29-31, 2007. Conference Poster
35. Balducci, Patrick J., Lawrence A. Schienbein, Tony B. Nguyen, Daryl R. Brown, and Eihab M. **Fathelrahman**. "An examination of the costs and critical characteristics of electric utility distribution system capacity enhancement projects." In 2005/2006 IEEE/PES Transmission and Distribution Conference and Exhibition, pp. 78-86. IEEE, 2006. DOI : <https://doi.org/10.1109/PSCE.2004.1397503>.
36. Roop, Joseph M., Eihab M. **Fathelrahman**, and Steven E. Widergren. "Price response can make the grid robust: an agent-based discussion." In IEEE Power Engineering Society

General Meeting, 2005, pp. 2813-2817. IEEE, 2005. DOI :

<https://doi.org/10.1109/PES.2005.1489307>

37. Balducci, Patrick, Mark Weimar, Susan Whitmore, Eihab **Fathelrahman**, and Laurie Scovell. "Determining the Current Rates of Motor Fuel Tax Evasion for the State of Montana". Prepared for the Department of Transportation. Report No. FHWA/MT-06-007/8180. November 2006. Government Report.
38. Mark Weimar and Eihab **Fathelrahman** "Data Anomaly and Signature Detection with Associated Data Utility Development for Mexico 1994 Financial Crises." PNNL-SA-43756. Pacific Northwest National Laboratory, Richland, WA. May 2004. Government Report.
39. Roop, Joseph M., and Eihab **Fathelrahman**. "Modeling electricity contract choice: an agent-based approach." Summer Study for energy efficiency in industry, New York. (2003). Conference Proceeding Paper. <http://gridwise.pnl.gov/docs/pnnl38282>
40. **Fathelrahman** EM, CJ Hostick, and DJ Hostick. "Historical Tracking of DOE Technologies, Market Transformation, Deployment, and Codes and Standards for Building Programs: A Decade of Accomplishments, 1990-2000." PNNL-SA-38998, Pacific Northwest National Laboratory, Richland, WA. August 2003.
41. Dana L. Hoag and Eihab **Fathelrahman**. "Is Agricultural Research a Good Investment". Technical Bulletin TB00-2. Colorado State University Agricultural Experiment Station and Department of Agricultural and Natural Resource Economics. 2000.
42. Eihab M. **Fathelrahman**. Food security indicators strategies and policies for the Middle East and North Africa Region. 3rd Global Food Security, Food Safety & Sustainability Conference. May 21-22 , 2018. New York, USA. Conference Abstract.
43. Fathelrahman, Eihab. Exploratory Study on Food Security Strategies under Natural, Technical, and Economic Risk . Workshop on Sudan Initiative for Food Security. Khartoum, Sudan. April 30th to May 1, 2018.
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