
Personal Information

- **Name:** Fayha Muhammed Al-Shibli
 - **Marital Status:** Married, Five Kids
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 - **ORCID:** 0000-0002-5628-0975
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Qualifications

| Qualification | Specialization | University | Rank/Location Date |
|--|--|--|--------------------|
| PhD | Applied Ecology / Water Theme | Institute for Applied Ecology, University of Canberra, Australia | 2018 |
| Master's Degree | Environmental Science and Management | University of Jordan, Jordan | 2008 |
| Bachelor's Degree | Agricultural Resources and Environment | University of Jordan, Jordan | 2003 |
| Fulbright Junior Faculty Development Program Award | Sustainable Environment | University of Florida, USA | 2021 |

Specialization and Domain of Interest

- **Specialization:** Applied Ecology
 - **Domain of Interest:**
 - Negative Emission, Climate Change Modelling
 - Flood Modelling, Environmental Modelling
 - Water Systems, Meteorology
 - Applied Hydrology, Irrigation Systems
 - GIS Mapping, Environmental Impact Management
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Career Experience

| Job Title | Place of Work | Dates |
|--------------------|---|----------------|
| Head of Department | Land, Water and Environment Department, School of Agriculture, University of Jordan | 2021 - Present |

| Job Title | Place of Work | Dates |
|--------------------------------|--|---------------------|
| Associate Professor | University of Jordan, Faculty of Agriculture | 2024 - Present |
| Assistant Professor | University of Jordan, Faculty of Agriculture | Jan 2019 - May 2024 |
| Affiliate | University of Canberra-Australia | 2016 - 2018 |
| Academic Advisor | Saudi Arabia Cultural Mission / Saudi Arabia Embassy, Australia | 2010 - 2015 |
| Researcher | Ministry of Agriculture, Jordan | 2005 - 2009 |
| Project Coordinator/Instructor | Ministry of Water and Irrigation / Jordanian Aqua Conservation Association, UNEP/GEF Project | 2003 - 2005 |

Courses Taught

- **Meteorology:** 2019/2020 – 2022-2023
- **Fundamentals of Irrigation:** 2019 - Present
- **Seminar in Water, Land, and Environment:** 2019, 2022, 2023
- **Farm Irrigation Management:** 2019, 2021, 2022, 2023
- **Environment Impact Assessment:** 2020/202, 2023
- **Hydrology:** 2020-2021 Summer, 2023, 2024/2025
- **Research Methodology (PhD Course):** 2022/2023
- **Climate Change Science and Modelling (Master Course):** 2024/2025
- **Special Topics (PhD Course):** 2024
- **Climate Change: Impacts and Adaptation (PhD Course):** 2025
- **Advanced Environmental Impact Assessment (Master Course):** 2025

Recent Projects & Graduate Supervision

| Project Title | Sponsor | Position |
|--|--|-----------------|
| Water-Climate Innovation Lab Establishment | USAID/Ministry of Water and Irrigation | Project Manager |
| Simulate Flash Flood in the Dead Sea Basin under GCMS/RCMS Projections: Building Resiliency for Flood Vulnerable Communities | Australian Embassy, Department of Foreign Affairs and Trade, Australia | Project Manager |

| Project Title | Sponsor | Position |
|--|---|------------------|
| Water-Climate Innovation Lab Establishment | USAID/Ministry of Water and Irrigation | Project Manager |
| Simulating Flood Sheets under Climate Change Scenarios in the Aqaba Region | Deanship of Scientific Research Fund, University of Jordan | Project Manager |
| Research Study in “Drought Assessment, Land Use/Land Cover and Simulation” | Beihang University, China | Co-Supervisor |
| Ambient Air Pollution in Jordan | University of Jordan | Chair-Supervisor |
| Climate Change-Driven Crop Production in Jordan | University of Jordan | Co-Supervisor |
| Climate Extremes prediction | Hashemite University, Jordan | Chair-Supervisor |
| EIA of Methane Plumes in Jordan | International Centre for Advanced Mediterranean Agronomy Studies CIHEAM-Italy | Chair-Supervisor |

Administrative Works & Committees

- **Head of the Department:** Land, Water and Environment Department, University of Jordan | 2021 – Present
 - **Associate Professor-** Land, Water and Environment Department -School of Agriculture-University of Jordan| 2024 to present
 - **Assistant Professor-** Land, Water and Environment Department -School of Agriculture-University of Jordan} 2019-2024
 - **Affiliation Scholar** –University of Canberra -Australia | 2016-2018
 - **Academic Advisor:** Saudi Cultural Mission, Canberra Australia | 2010 – 2015
 - **Trade Agreements Researcher** – International Policies Department –Ministry of Agriculture of Jordan| 2008-2009
 - **Agricultural Production Department Researcher** – Ministry of Agriculture of Jordan| 2005-2007
 - **Financial and administrative Coordinator** - Jordanian Aqua Conservation Association – UNEP/GEF Project | 2002-2005
 - **Member of Various Committees:** Accreditation, Strategy Review, and Scientific Day Coordination
 - **Coordinator:** Scientific Day, Graduates Assembly, Faculty of Agriculture, University of Jordan | 2022
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Publications

Fayha Al-Shibli, Khudairat. W Al-Kofahi and McKnight. S. (2025). Climate Extremes and Reclassification Based on CMIP's simulations. Submitted.

Al-Kofahi S, Khudairat. W, and **Fayha Al-Shibli** (2025). Assessing climate extremes on rainfed Triticum aestivum and Olea europaea production in an arid zone", submitted.

Althalaj, Tasnim, **Fayha Al-Shibli**, Amani Alassaf, "Assessment of Rainfed Wheat Productivity in a Changing Climate in Irbid, Jordan Using Statistical Downscaling" *Environmental and Sustainability Indicators* (2024)

Fayha Al-Shibli, William Maher, Mohammad Ashraf Ottom, "Estimating Soil Heat Flux in Jordan Based on ERA5 Parameters and NCEP/NCAR Energy Outputs" *Earth Systems and Environment* (2024)

Nivin Hasan, Yang Dongkai, **Fayha Al-Shibli**. Remote Sensing Drought Indices Evaluation Using NDVI and the Corresponding VCI in Amman Zarqa Basin. The 2nd International Conference on Geosynthetics and Environmental Engineering (ICGEE2024). April 19-20, 2024

Nivin Abdelrahim Hasan, Yang Dongkai and **Fayha Al-Shibli***. SPI and SPEI Drought Assessment and Prediction Using TBATS and ARIMA Models, Jordan. *Water* 2023, 15, 3598. <https://doi.org/10.3390/w15203598>. Springer book series on Lecture Notes in Civil Engineering (LNCE) (ISSN: 2366-2557) <https://www.springer.com/series/15087>

Nivin Abdelrahim Hasan, Yang Dongkai, and **Fayha Al-Shibli**. A Historical–Projected Analysis of Land Use/Land Cover in Developing Arid Region Using Spatial Differences and Its Relation to the Climate. *Sustainability* 2023, 15, <https://doi.org/10.3390/>

Fayha M. Al-Shibli, Mohammad A. Ottom, Hani Saoub, Radwan Al-Weshah. Comparative Analysis of Potential Evapotranspiration Calculation Methods with ERA-Reanalysis Climate Models' Projections in Western Asia, Jordan. *Applied Ecology and Environmental Research*. 2021. 19(6):4849-4879

Khalid M.O. Nahar, **Fayha Alshibli**, Mohammad Ashraf Ottom, and Mohammed M. Abu Shquier. Air Quality Index Using Machine Learning – Jordan Case Study. *COMPUSOFT*, An international journal of advanced computer technology. **2020**. 9(9), 3831-3840.

Al-Shibli, F. M., Maher, W. A., & Thompson, R. M. . The Need for a Quantitative Analysis of Risk and Reliability for Formulation of Water Budget in Jordan. *Jordan Journal of Earth and Environmental Sciences*, 8(2):77-89. 2017

Fayha Al-Shibli, PhD Thesis. Modelling a Future Water Budget in the Amman-Zarqa Basin, Jordan: Evaluation of the Major Stressors Affecting Water Availability. University of Canberra 2018

Fayha Al-Shibli, Master Thesis . Assessment of National Capacity Constraints for Implementing the International Environmental Conventions. University of Jordan 2008

Fayha Al-Shibli (2005). Water Use in Agriculture Guide-Arabic. Jordanian Aqua Conservation Association 2005.

Fayha Al-Shibli and others. Student Water Manual. Ministry of Water and Irrigation 2004.

Conferences & Symposia

| Conference Title | Place and date of the conference | Type of participation |
|--|--|---|
| The University of Jordan Erasmus+ International Staff Week 2022 -Renewable Energy and Climate Change | School of International Studies 18/05/2022 | PANELIST Talk title: “Climate Change and Negative Emissions “ |
| Climate Change Impacts and Policies for Adaptation and Resilience – UCN's joint cooperative project "PULSE" and presented by UJ, the University of Florida and the University of Wisconsin-Madison | VIRTUAL WEBINAR 30 May 2022 | PANELIST Talk title: “Enhancing natural processes on land and sea: options for climate change mitigation and negative emission action” |
| International Conference on Space 2022 | (29 March 2022) Islamabad, Pakistan | Co-Authorship Assessment on Main Indices to Decreasing of Dead Sea Surface Water Using Satellite Images and Timeseries Datasets Analysis. Nivin Hasan*, Dr. Fayha Al-Shibli, Prof. Yang Dangkai*, Prof. Tan Yumin |
| ECMWF “Connecting global to local hydrological modelling and forecasting: scientific advances and challenges” | Virtual 29 June 2021 to 1 July 2021 | Participant |
| Copernicus-Climate Change Service- ECMWF C3S (Climate Change Service) Conference & General Assembly | 18-20 May 2021- Virtual using Swapcard. | Attendee |
| IAE HDR Conference, February 2018 | Canberra – Australia 2018 | Direct Coupling of Global Climate Models to Hydrological Models: Simulation the Effect of Climate Change on Streamflow –Amman Zarqa Basin Case Study |
| WTO Agricultural Agreements Delegations | Cairo-Egypt 2008 | Delegate |
| Domestic Conferences in Water and Environment | Amman 2004- 2008 | Participant |
| eWater Software Conference, November 2017 | Canberra – Australia 2017 | peer-reviewed poster presentation entitled: Quantifying Hydrological changes and surface runoff in a changing climate. Case study from Jordan |

Professional Training Courses

| Training Courses | Year |
|--|-------------|
| Earth Observations of Blue Carbon Ecosystems. NASA’s Applied Remote Sensing Training (ARSET) | 2025 |
| Methane Observations for Large Emission Event Detection and Monitoring. NASA’s Applied Remote Sensing Training (ARSET) | 2024 |

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|---|------|
| Developing Educational Contents and resources – UJ- Centre for Excellence in Learning and Teaching | 2024 |
| Advanced learning through evidence- UJ- Centre for Excellence in Learning and Teaching | 2024 |
| Leveraging the Power of EO Data for WATER - EMEA – Planet Labs | 2024 |
| Part 2: The Impact of Drought on CO2 – NASA Enterprise | 2024 |
| Part 1: XCO2 from OCO-2 and OCO-3: Mission Recap, and Data Characteristics and Limitations- NASA Enterprise | 2024 |
| Part 3: CO2 Measurements over a Large Urban Area- NASA Enterprise | 2024 |
| Climate and Weather – Copernicus and EUMETSAT Earth observation and visualization data | 2023 |
| SARAH – A Climate Data Record on Surface Solar Radiation -Copernicus and EUMETSAT | 2023 |
| Climate Extremes: Heatwaves, Changes in Ice Drought and Flood - Copernicus and EUMETSAT Earth observation and visualization data | 2023 |
| Excellence in Peer Review: How to be an effective peer reviewer-Taylor & Francis Reviewer Training Network | 2023 |
| Total column water vapour- <i>implemented by the European Centre for Medium-Range Weather Forecasts on behalf of the European Commission</i> | 2023 |
| Near surface and upper air climate data- <i>implemented by the European Centre for Medium-Range Weather Forecasts on behalf of the European Commission</i> | 2023 |
| Atmospheric chemistry and physics: ozone- <i>implemented by the European Centre for Medium-Range Weather Forecasts on behalf of the European Commission</i> | 2023 |
| How to find the right collaborators and funding opportunities, ELSEVIER | 2022 |
| Choosing the right journal for Biology, Agriculture and Food Science research – Taylor & Francis Author Services Platform | 2022 |
| Management & Leadership Skills-University of Jordan | 2022 |
| Time Management-University of Jordan | 2022 |
| Predatory Academic Journals and Conferences: Raising Awareness and Understanding | 2022 |
| Climate Change Mitigation via Removal of Atmospheric GHGs | 2021 |
| <i>Australian National University-Institute for Climate, Energy, and Disaster Solutions -Australia</i> | 2021 |
| Open Educational Resources | 2021 |
| The Quantitative and Qualitative Gap between Educational Outcomes and Labour Market Requirements | 2021 |
| URKUND-Plagiarism Detection Made Simple-Jordanian Universities - | 2021 |
| How to build an exam on JU e-Exam platform (LMSsystem) | 2020 |
| Techniques of Managing Online Educational Meetings | 2020 |
| Employ advanced features on using Microsoft Teams | 2020 |
| Arabic language efficiency Exam – Jordan Academy of Arabic | 2019 |
| Using MCQs to Test Higher Order Thinking Skills – University of Jordan | 2019 |
| Blended Learning - University of Jordan | 2019 |
| Design a Course - University of Jordan | 2019 |
| Project Based Learning in Undergraduate Engineering Education- University of Jordan | 2019 |
| Academic Quality Assurance - University of Jordan | 2019 |
| Creating Effective Surveys using Google Forms - University of Jordan | 2019 |

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| Three-part series: All you need to know for the successful completion of the research thesis and beyond- University of Canberra/ Australia | 2018 |
| Training sessions in Coding, Surface Water and Groundwater Modelling. eWater – Canberra/ Australia | 2017-2018 |
| Academic Writing - University of Canberra/ Australia | 2017 |
| eWater Source Software –Brisbane/ Australia | 2017 |
| Seven Steps for Academic Writing - University of Canberra/ Australia | 2016 |
| Academic Integrity Module – University of Canberra/ Australia | 2015 |
| Time Management – CIT Solutions – Canberra/ Australia | 2014 |
| Smart Living and Working – Nurturing Nortons-Canberra/Australia | 2013 |
| Olive Pruning, Organoleptic Olive Oil | 2008 |
| Genetic Fingerprint for Olive Varieties in Jordan | 2007 |
| Wastewater Reuse for Agricultural Crops | 2006 |
| Electronic Sensors in Soil Moisture & Temperature | 2004 |
| Planning & Economical Study for Technical Project | 2003 |

Community Service

- **Final Candidate:** Dutch Youth Innovation Award, Finland Church Aid, Agricultural Waste Management, Biochar Production | June 2023
- **Member:** Higher Council for Science and Technology – Remote Sensing in Climate Change National Committee
- **Coordinator:** Scientific Day & Graduates Assembly Day, Faculty of Agriculture, 2022

Skills

- **Software:** eWATER, Source, ArcMap GIS, ArcGIS Pro, R, RStudio, JavaScript

References

Available upon request.

Links:

Google Scholar
ResearchGate
Faculty Member
Website
National Database
for Researchers

<https://scholar.google.com/citations?user=aYQbtUMAAAAJ&hl=en>

<https://www.researchgate.net/profile/Fayha-Alshibli>

<http://eacademic.ju.edu.jo/f.shibli/default.aspx>

<http://resn.hcst.gov.jo/GeneralInfo.aspx>

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