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## Personal Information

- **Name:** Fayha Muhammed Al-Shibli
  - **Marital Status:** Married, Five Kids
  - **Email:** f.shibli@ju.edu.jo; fayhaalshibli@gmail.com
  - **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

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## 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

<b>Job Title</b>	<b>Place of Work</b>	<b>Dates</b>
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

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### 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

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### Recent Projects & Graduate Supervision

<b>Project Title</b>	<b>Sponsor</b>	<b>Position</b>
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

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#### 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 2<sup>nd</sup> 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.

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## 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"	<b>Virtual   29 June 2021 to 1 July 2021</b>	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)	<b>2025</b>
Methane Observations for Large Emission Event Detection and Monitoring. NASA's Applied Remote Sensing Training (ARSET)	<b>2024</b>

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
<b>SARAH – A Climate Data Record on Surface Solar Radiation</b> -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
<b>How to find the right collaborators and funding opportunities, ELSEVIER</b>	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
<b>Climate Change Mitigation via Removal of Atmospheric GHGs</b>	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

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

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### 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

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### Skills

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

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### References

Available upon request.

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### Links:

<b>Google Scholar</b>	<a href="https://scholar.google.com/citations?user=aYQbtUMAAAJ&amp;hl=en">https://scholar.google.com/citations?user=aYQbtUMAAAJ&amp;hl=en</a>
<b>ResearchGate</b>	<a href="https://www.researchgate.net/profile/Fayha-Alshibli">https://www.researchgate.net/profile/Fayha-Alshibli</a>
<b>Faculty Member Website</b>	<a href="http://eacademic.ju.edu.jo/f.shibli/default.aspx">http://eacademic.ju.edu.jo/f.shibli/default.aspx</a>
<b>National Database for Researchers</b>	<a href="http://resn.hcst.gov.jo/GeneralInfo.aspx">http://resn.hcst.gov.jo/GeneralInfo.aspx</a> No: 89554