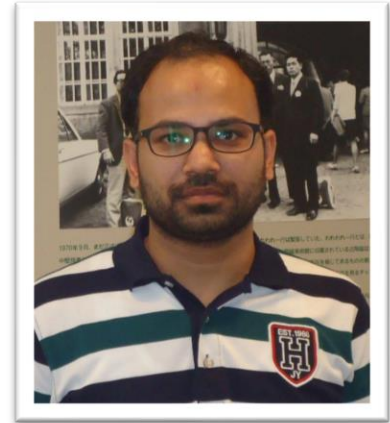


Muhammad Sultan (Dr.Eng.)

Ph.D. / Dr.Eng. (Energy & Environmental Engineering)
Kyushu University, Japan

Assistant Professor | HEC Approved Supervisor

Department of Agricultural Engineering
Bahauddin Zakariya University, Multan, Pakistan



Impact Factor: 51+

BZU: http://www.bzu.edu.pk/v2_faculty_single.php?id=682

ResearchGate: https://www.researchgate.net/profile/Muhammad_Sultan8

Google Scholar: <https://scholar.google.co.jp/citations?user=a1rqTcYAAAAI&hl=en>

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Research Support Staff

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Additional Affiliation

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<http://adaptiveagrotech.com/index.php/en/team/consultation-team>

Email: sultan@adaptiveagrotech.com

Education:

2017	Kyushu University, Fukuoka, JAPAN
Post-Doctorate Energy and Environmental Engineering	<p>Research Title: <i>Energy-Efficient Air-Conditioning Systems for Sustainable Development in Agriculture Industry.</i></p> <p>◆ JASSO(MEXT): <i>Follow-up Research Fellowship 2017 by Japan Student Services Organization (JASSO), Ministry of Education, Culture, Sports, Science and Technology (MEXT), JAPAN</i></p>
2012 -2015	Kyushu University, Fukuoka, JAPAN
Ph.D. /Dr. Eng. Energy and Environmental Engineering	<p>Thesis Title: <i>Study on sorption characteristics of water adsorbents for agricultural air-conditioning systems.</i></p> <p>◆ <i>Commemorative Plaque from Kyushu University</i></p> <p>◆ <i>MEXT: Monbukagakusho Scholarship (fully funded) during 2012-2015 from Ministry of Education, Culture, Sports, Science and Technology, JAPAN</i></p>
2008 -2010	University of Agriculture, Faisalabad
M.Sc. (Hons.) Agricultural Engineering	<p>Thesis Title: <i>Impact assessment of sewerage and industrial effluents on water resources in Faisalabad.</i></p> <p>◆ <i>3rd Position Holder</i></p>
2004 -2008	University of Agriculture, Faisalabad
B.Sc. Agricultural Engineering	<p>B.Sc. Agricultural Engineering</p> <p>◆ <i>1st Position Holder</i></p>

Professional Experience:

Nov 2009 – to date	<p>◆ Assistant Professor Department of Agricultural Engineering, Bahauddin Zakariya University</p>
Jan 2018 – to date	<p>◆ Professional Consultant Adaptive AgroTech International, Seaside, California 93955, USA</p>
2017	<p>◆ JASSO(MEXT): Post-PhD Research Fellow Department of Energy and Environmental Engineering Kyushu University, Japan</p>
Apr 2014 – 2016	<p>◆ Research Support Staff International Institute for Carbon-Neutral Energy Research (WPI: I²CNER), Kyushu University, Japan</p>

<i>March 2016 – to date</i>	♦ Departmental Director Students Affairs (DSA) Bahauddin Zakariya University, Multān
<i>June 2016 – to date</i>	♦ Secretary, Admission Committee (B.Sc. M.Sc. (Hons.) & Ph.D.) Department of Agricultural Engineering, Bahauddin Zakariya University
<i>August 2016 – to date</i>	♦ Member, Departmental Disciplinary Committee Department of Agricultural Engineering, Bahauddin Zakariya University
<i>Nov 2009 – Sep 2012</i>	♦ Secretary, Time Table and Date Sheet Committee (B.Sc. M.Sc. (Hons.) & Ph.D.) Department of Agricultural Engineering, Bahauddin Zakariya University
<i>2008 – to date</i>	♦ PEC Registered Engineer (PEC# AGRI/2711) Pakistan Engineering Council (PEC) http://www.pec.org.pk/getpecno.aspx
<i>2017 – to date</i>	♦ Membership to the Society of Chemical Industry (SCI), London (SCI# 75282) https://www.soci.org/

Research Activities:

<i>March 2018</i>	Technology Title: Design and Development of Low-cost and Energy-Efficient Air-conditioning System
♦ SATHA* Innovation Award	*SATHA: South Asia Triple Helix Association (URL: https://www.satha.org/)
♦ SATHA* Gold Medal	
<i>December 2017</i>	Speech Title: Sustainable air-conditioning and cooling options for Pakistan: An Agricultural Approach
♦ Distinguished Speaker	Innovation symposium on DICE: Energy and Water 2017
♦ Technical Panelist (DICE-MUET 2017)	Organized by Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan on 12-13 December 2017. *DICE: Distinguished Innovations, Collaboration & Entrepreneurship
<i>December 2017</i>	Speech Title: Energy-efficient air-conditioning and cooling systems for agricultural applications in Pakistan
♦ Invited Speaker	International Symposium on Global Value Chains (GVCs) and Decent Work Deficit in Agriculture: Present Challenges and Future Prospects Organized by University of Agriculture, Faisalabad, 01-02 December 2017
<i>November 2017</i>	Speech Title: Low-cost and Sustainable Air-conditioning Systems for Pakistan
♦ Keynote Speaker	IEEE International Conference on Energy Conservation and Efficiency (ICECE-2017), organized by University of Engineering and Technology (UET), Lahore, 22-23 November 2017
♦ Technical Panelist (IEEE ICECE-2017)	

	Indexed by Scopus along-with ISBN# 978-1-5386-3606-0 http://icece.kics.edu.pk/
<i>August 2017</i> ◆ Session Chairman (ISHPC-2017) Tokyo, JAPAN	International Sorption Heat Pump Conference (ISHPC-2017), Tokyo, Japan held on 7-10 August, 2017. http://biz.knt.co.jp/tour/2017/ISHPC2017/index.html Organizer: Japan Society of Refrigeration and Air-Conditioning Engineers (JSRAE), Japan. http://www.jsrae.or.jp/jsrae/Eindex-2.html Session: <i>Desiccant - Heat Exchangers & Heat and Mass Transfer</i>
<i>March 2017</i> ◆ Session Organizer ◆ Innovative Technology Speaker	6 th Invention to Innovation Summit, held at Punjab University, Lahore on 8-9 March, 2017. Organized by Institute of Research Promotion (IRP), UMT, Lahore. http://www.irp.edu.pk/ Technology Session: <i>Technologies for Agricultural Engineering</i>
<i>December 2016</i> ◆ Keynote Lecture (DICE-E&W2016)	Speech Title: Advances in Psychometric Renewable Energy from Air: Fundamental and Applications All Pakistan DICE*: Innovation symposium on Energy & Water (DICE-E&W2016), held at University of Engineering & Technology Lahore on 19-20 December, 2016. http://diceew2016.uet.edu.pk/ *DICE: Distinguished Innovations, Collaboration & Entrepreneurship
<i>November 2016</i> ◆ Keynote Lecture (EESD-2016)	Speech Title: Maisotsenko Cycle: An Innovative Source of Renewable Energy from Air 4 th International Conference on Energy, Environment and Sustainable Development, (EESD-2016) held at Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan on 1-3 November, 2016. http://eesd.muuet.edu.pk/speakers
<i>May 2016</i> ◆ Vice-Chairman ◆ Secretary (NCAES-2016)	1 st National Conference on Agricultural Engineering and Sciences (NCAES-2016), held at Department of Agricultural Engineering, Bahauddin Zakariya University, Multan, Pakistan on 30-31 May, 2016. http://ncaes2016.com/
<i>March 2016</i> ◆ Session Organizer ◆ Innovative Technology Speaker	5 th Invention to Innovation Summit, held at Punjab University, Lahore on 2-3 March, 2016. Organized by Institute of Research Promotion (IRP), UMT, Lahore. http://www.irp.edu.pk/ Technology Session: <i>Technologies for Agricultural Engineering</i>

Research Projects:

<i>October 2017</i> ◆ Research Grant	Research Promotion Grant from Bahauddin Zakariya University, Multan, Pakistan. Grant Amount: 0.175 Million PKR Research Project Title: Investigation of agriculture based low-cost ad/sorbents for desiccant air conditioning applications
<i>November 2016</i> ◆ Research Grant	Research Promotion Grant from Bahauddin Zakariya University, Multan, Pakistan. Grant Amount: 0.20 Million PKR Research Project Title: Thermodynamic Evaluation of Low-Cost Air-Conditioning Systems for Various Applications
<i>April 2016</i> ◆ Research Grant	Research Promotion Grant from Bahauddin Zakariya University, Multan, Pakistan. Grant Amount: 0.15 Million PKR Research Project Title: Evaluation of Solar Chimney Driven Passive Air-Conditioning System for Agricultural and Livestock Applications in Pakistan

Awards & Grants:

<i>March 2018</i> ◆ SATHA* Innovation Award ◆ SATHA* Gold Medal	Technology Title: Design and Development of Low-cost and Energy-Efficient Air-conditioning System *SATHA: South Asia Triple Helix Association (URL: https://www.satha.org/)
<i>November 2017</i> ◆ Best Paper Award	The 19 th Cross Straits Symposium on Materials, Energy and Environmental Science and Technology (CSS-EEST19), Kyushu University, Fukuoka, Japan (30 Nov. to 01 Dec. 2017) http://www.tj.kyushu-u.ac.jp/en/igses/c_event/cross_straits_symposium.php
<i>April 2017</i> ◆ Winner of JASSO(MEXT) Post-PhD Research Fellowship ◆ The Only Pakistani selected for the year 2017-18	Winner of "JASSO Post-PhD Research Fellowship" http://www.jasso.go.jp/en/index.html Awarded by: Ministry of Education, Culture, Sports, Science and Technology (MEXT), JAPAN for the year 2017-18 Only Pakistani who is selected by MEXT (Japan) for the year 2017-18. Research conducted at Department of Energy and Environmental Engineering, Kyushu University, Japan

	Research Title: Energy-Efficient Air-Conditioning Systems for Sustainable Development in Agriculture Industry
<i>March 2017</i>	6 th Invention to Innovation Summit, held at Punjab University, Lahore on 8-9 March, 2017. Organized by Institute of Research Promotion (IRP), UMT, Lahore. http://www.irp.edu.pk/
◆ Shield Winner and certificates	
◆ Cash Award for Best Technology Presentation	Technology Session Title: Technologies for Agricultural Engineering Award: Innovation Technology Presentation (Shield Winner and Certificates). Award: Best Presentation Cash Award
<i>December 2016</i>	Bahauddin Zakariya University, Multan
◆ Remuneration/Award	Remuneration of 0.10 Million PKR for the sake of Research and Publications in Impact Factor Journals for the year 2016.
<i>November 2016</i>	Higher Education Commission (HEC), Islamabad, Pakistan
◆ HEC Approved Supervisor	Selected as HEC Approved Supervisor http://www.hec.gov.pk/english/scholarshipsgrants/ASA/Pages/SearchaSupervisor.aspx
<i>November 2016</i>	Research Promotion Grant from Bahauddin Zakariya University, Multan, Pakistan.
◆ Research Grant	Grant Amount: 0.20 Million PKR Research Project Title: Thermodynamic Evaluation of Low-Cost Air-Conditioning Systems for Various Applications
<i>May 2016</i>	1 st National Conference on Agricultural Engineering and Sciences (NCAES-2016), Bahauddin Zakariya University, 60800 Multan, Pakistan
◆ Best Paper Award	
<i>April 2016</i>	Renewable Energy Global Innovations (REGI), Canada
◆ Award of Key Scientific Article	Award: Key Scientific Article contributing to the Excellence in Energy Research REGI, Canada Ltd, Ottawa, K4M0B9, Ontario, CANADA. Available online via Renewable Energy Global Innovations Series 2016, Tel (+1) 613-878-3745, URL: https://REGInnovations.org
<i>April 2016</i>	Research Promotion Grant from Bahauddin Zakariya University, Multan, Pakistan.
◆ Research Grant	Grant Amount: 0.15 Million PKR Research Project Title: Evaluation of Solar Chimney Driven Passive Air-Conditioning System for Agricultural and Livestock Applications in Pakistan
<i>March 2016</i>	5 th Invention to Innovation Summit, held at Punjab University, Lahore on 2-3 March, 2016. Organized by Institute of Research Promotion (IRP), UMT, Lahore. http://www.irp.edu.pk/
◆ Shield Winner and Certificates for Technology Presentation	Technology Session Title: Technologies for Agricultural Engineering Award: Innovative Technology Presentation (Shield Winner and Certificates).

<p>March 2016</p> <p>◆ Research Grant</p>	<p>Students' Motivational Research Grant from Department of Agricultural Engineering, Bahauddin Zakariya University, Multan, Pakistan.</p> <p>Research Project Title: Small-scale demonstration models under the subject 'Machine Design'.</p>
<p>Sep 2015</p> <p>◆ Ph.D. / Dr.Eng.</p> <p>◆ Commemorative Plaque</p>	<p>Kyushu University, Japan</p> <p>Degree awarded: Ph.D. / Dr. Eng. (Energy and Environmental Engineering)</p> <p>Commemorative Plaque from Kyushu University, Japan</p>
<p>May 2015</p> <p>◆ Research Grant</p>	<p>Kyushu Industrial Technology Center (KITEC), Japan</p> <p>Grant Amount: 0.22 Million JPY</p> <p>Purpose: Special Grant for International Representation of Scientific Research at United States of America (USA)</p>
<p>2012-2015</p> <p>◆ MEXT: Scholarships</p>	<p>Ministry of Education, Culture, Sports, Science and Technology, JAPAN</p> <p>MEXT: Monbukagakusho Scholarship (fully funded)</p> <p>Purpose: Ph.D. studies at Kyushu University, Japan</p>
<p>2010</p> <p>◆ M.Sc. (Hons.) Agri. Engineering</p> <p>◆ 3rd Position</p>	<p>University of Agriculture, Faisalabad</p> <p>Degree awarded: M.Sc. (Hons.) Agricultural Engineering</p> <p>3rd Positions in M.Sc. (Hons.) Agricultural Engineering</p>
<p>2008-2010</p> <p>◆ Scholarships</p>	<p>University of Agriculture, Faisalabad</p> <p>Merit Scholarship on securing Position</p>
<p>2008</p> <p>◆ B.Sc. Agri. Engineering</p> <p>◆ 1st Position</p>	<p>University of Agriculture, Faisalabad</p> <p>Degree awarded: B.Sc. Agricultural Engineering</p> <p>1st Positions in B.Sc. Agricultural Engineering</p>
<p>2004-2008</p> <p>◆ Scholarships</p>	<p>University of Agriculture, Faisalabad</p> <p>Merit Scholarship on securing Position</p>

Scientific Memberships:

<p>Professional affiliations</p>	<p>◆ Pakistan Engineering Council (PEC) (PEC# AGRI/2711)</p> <p>◆ Higher Education Commission (HEC)</p> <p>◆ Pakistan society of Agricultural Engineers (PSAE)</p> <p>◆ Pakistan Engineering Congress</p> <p>◆ Japan Student Services Organization (JASSO)</p>
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◆ Society of Chemical Industry (SCI), London (SCI# 75282)

Courses Taught:

Ph.D. Agricultural Engineering	<ul style="list-style-type: none"> ◆ Thermal Air-Conditioning Engineering (FMP-705) ◆ Energy System Engineering
M.Sc. (Hons.) Agricultural Engineering	<ul style="list-style-type: none"> ◆ Evaporative Cooling Engineering (FMP-505) ◆ Agricultural Storage Engineering ◆ Renewable Energy Engineering ◆ Grain Preservation and Processing (FMP-505)
B.Sc. Agricultural Engineering	<ul style="list-style-type: none"> ◆ Engineering Thermodynamics (FMP-201) ◆ Machine Design (FMP-401) ◆ Design of Agricultural Machinery (FMP-303) ◆ Mechanics of Material (SEE-202) ◆ Energy Resources and Utilization ◆ Instrumentation & Measurements ◆ Engineering Mechanics ◆ Metallurgy & Workshop Practices ◆ Manufacturing Engineering ◆ Industrial Engineering & Management
Other Degrees	<ul style="list-style-type: none"> ◆ Engineering Applications to Agriculture (AGM-301) ◆ Introduction to Farm Machinery & Equipments (FMP-212) ◆ Computational Engineering ◆ Engineering Statistics ◆ Fundamentals of Remote Sensing

Research Interests/Area:

Research Technologies	<ul style="list-style-type: none"> ◆ Adsorption Cooling ◆ Desiccant Air-Conditioning ◆ Evaporative Cooling (Direct/Indirect) ◆ Maisotsenko Cycle (M-Cycle) ◆ Adsorption Isotherms & Kinetics ◆ HVAC Systems ◆ Hybrid Systems
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	<ul style="list-style-type: none"> ◆ Gas Turbines ◆ Wastewater Treatment
Research Applications	<ul style="list-style-type: none"> ◆ Greenhouse Air-Conditioning ◆ Livestock (Animal) Air-Conditioning ◆ Industrial Processes Air-Conditioning ◆ Fruits and Vegetable Storage ◆ Grains and Dry Fruit Storage ◆ Ceiling and Structures for Agriculture ◆ Water Desalination and Distillation ◆ Wastewater Treatment
Research Methodology	<ul style="list-style-type: none"> ◆ Characterization ◆ Steady-state analysis (thermodynamic) ◆ Modeling ◆ Numerical simulation ◆ Optimization

Others Highlights:

<i>Peer Reviewer (Expert Referee) of Scientific Journals</i>	<ul style="list-style-type: none"> ◆ Applied Energy (Elsevier) https://www.journals.elsevier.com/applied-energy ◆ Applied Thermal Engineering (Elsevier) https://www.journals.elsevier.com/applied-thermal-engineering ◆ International Journal of Refrigeration (Elsevier) https://www.journals.elsevier.com/international-journal-of-refrigeration ◆ Transportation Research Part D: Transport and Environment (Elsevier) https://www.journals.elsevier.com/transportation-research-part-d-transport-and-environment ◆ Journal of Environmental Management (Elsevier) https://www.journals.elsevier.com/journal-of-environmental-management ◆ Journal of Building Engineering (Elsevier) https://www.journals.elsevier.com/journal-of-building-engineering/ ◆ Atmospheric Research (Elsevier) https://www.journals.elsevier.com/atmospheric-research ◆ Heat Transfer Engineering (Taylor and Francis) http://www.tandfonline.com/toc/uhte20/current
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	<ul style="list-style-type: none"> ◆ Meteorology and Atmospheric Physics (Springer) http://www.springer.com/ ◆ Water and Environment Journal (Wiley Online Library) https://onlinelibrary.wiley.com/journal/17476593 ◆ International Journal of Agricultural and Biological Engineering (IJABE) ISSN: 1934-6352 https://ijabe.org/index.php/ijabe/index ◆ Pakistan Journal of Agricultural Sciences (PJAS) ISSN: 0552-9034 http://www.pakjas.com.pk/ ◆ Pertanika Journal of Science and Technology http://www.pertanika.upm.edu.my/IST.php ◆ Earth Sciences Research Journal (ESRJ) ISSN: 1794-6190 http://www.revistas.unal.edu.co/ ◆ International Journal of Environment and Pollution ISSN: 1741-5101 http://www.inderscience.com/jhome.php?jcode=ijep ◆ Journal of Engineering and Applied Sciences (JEAS) ISSN: 1023-862X http://journals.uetjournals.com/index.php/JEAS/index ◆ Technical Journal (TJ) ISSN:1813-1786 http://tj.uettaxila.edu.pk/ ◆ Energy and Environmental Engineering, ISSN: 2331-6306 (Print); ISSN: 2331-6330 (Online) http://www.hrpub.org/journals/jour_index.php?id=45
<i>Reviewer of HEC Research Projects</i>	◆ Higher Education Commission (HEC), Pakistan http://hec.gov.pk/
<i>Finance Secretary</i> April 2014 – March 2015	◆ Pakistan Student Association Japan (PSA-Japan) http://www.psajapan.com/

Graduate Student Supervised

M.Sc. (Hons.) Agricultural Engineering <i>*(Completed in 2017)</i>	<ul style="list-style-type: none"> ◆ Engr. Muhammad Kashif (PEC# AGRI/4435) <p>Thesis Title: Applications Potential of Low-Cost Farm Air-Conditioning Systems</p> <p>Degree: M.Sc. (Hons.) Agricultural Engineering (2017)</p>
M.Sc. (Hons.) Agricultural Engineering <i>*Under Supervision</i>	<ul style="list-style-type: none"> ◆ Engr. Sahrish Ashraf ◆ Engr. Hassan Niaz ◆ Engr. Faizan Shabir ◆ Engr. Hafiz Muhammad Umar Raza ◆ Engr. Akash Siddique ◆ Engr. Khawar Shahzad ◆ Engr. Farrukh Abbas

Ph.D. Agricultural
Engineering

♦ Engr. Shazia Noor

*Under Supervision

International Journal Publications

Sr. No.	Year / IF	Journal	Title and Authors
1.	2016 IF = 9.184	<i>Renewable and Sustainable Energy Reviews (Elsevier)</i> 08/2016; 66:537–555. DOI: 10.1016/j.rser.2016.08.022	<i>Overview of the Maisotsenko cycle -A way towards dew point evaporative cooling</i> Muhammad H. Mahmood, Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama, Valeriy S. Maisotsenko
2.	2015 IF = 9.184	<i>Renewable and Sustainable Energy Reviews (Elsevier)</i> 06/2015; 46:16-29. DOI: 10.1016/j.rser.2015.02.038	<i>An overview of solid desiccant dehumidification and air conditioning systems</i> Muhammad Sultan, Ibrahim I. El-Sharkawy, Takahiko Miyazaki, Bidyut Baran Saha, Shigeru Koyama
3.	2018 IF = 4.90	<i>Renewable Energy (Elsevier)</i> 06/2018; 121: 441-450. https://doi.org/10.1016/j.renene.2018.01.045	<i>Optimization of adsorption isotherm types for desiccant air-conditioning applications</i> Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama
4.	2016 IF = 4.90	<i>Renewable Energy (Elsevier)</i> 02/2016; 86:785-795. DOI: 10.1016/j.renene.2015.09.015.	<i>Steady-state investigation of water vapor adsorption for thermally driven adsorption based greenhouse air-conditioning system</i> Muhammad Sultan, Takahiko Miyazaki, Bidyut Baran Saha, Shigeru Koyama
5.	2016 IF = 3.771	<i>Applied Thermal Engineering (Elsevier)</i> 06/2016; 106C:192-202. DOI:10.1016/j.applthermeng.2016.05.192.	<i>Water Vapor Sorption Kinetics of Polymer Based Sorbents: Theory and Experiments</i> Muhammad Sultan, Ibrahim I. El-Sharkawy, Takahiko Miyazaki, Bidyut Baran Saha, Shigeru Koyama, Tomohiro Maruyama, Shinnosuke Maeda, Takashi Nakamura
6.	2017 IF = 2.94	<i>RSC Advances</i> 08/2017; Vol. 7, Issue 64, Pages: 40158–40178. https://doi.org/10.1039/c7ra04738j	<i>Phytogenic Magnetic Nanoparticles for Wastewater Treatment: A Review</i> Imran Ali, Changsheng Peng, Iffat Naz, Zahid M. Khan, Muhammad Sultan, Tariqul Islam, Irfan A. Abbasi

7.	2018 IF = 2.59	<i>Journal of Chemical Technology & Biotechnology (Wiley)</i> 03/2018; https://doi.org/10.1002/jctb.5648 pp:	<i>An Overview of Heavy Metal Removal from Wastewater Using Magnetotactic Bacteria</i> Imran Ali, Changsheng Peng, Zahid Mahmood Khan, Iffat Naz, Muhammad Sultan
8.	2015 IF = 1.83	<i>Adsorption (Springer)</i> 03/2015; 21(3):205-215. DOI: 10.1007/s10450-015-9663-y.	<i>Insights of water vapor sorption onto polymer based sorbents</i> Muhammad Sultan, Ibrahim I. El-Sharkawy, Takahiko Miyazaki, Bidyut B. Saha, Shigeru Koyama, Tomohiro Maruyama, Shinnosuke Maeda, Takashi Nakamura
9.	2017 IF = 1.73	<i>Journal of Chemistry (Hindawi publishing corporation)</i> ISSN: 2090-9063 (Print) ISSN: 2090-9071 (Online) Volume 2017 (2017), Article ID 2041648, 16 pages https://doi.org/10.1155/2017/2041648	<i>Regional Groundwater Quality Management through Hydrogeological Modeling in LCC, West Faisalabad, Pakistan</i> Aamir Shakoor, Zahid M. Khan, Muhammad Arshad, Hafiz U. Farid, Muhammad Sultan, Muhammad Azmat, Muhammad A. Shahid, Zafar Hussain
10.	2016 IF = 1.12	<i>Polish Journal of Environmental Studies</i> eISSN: 2083-5906, ISSN: 1230-1485 Vol. 25, No.6 (2016), Pages: 2265-2273. DOI: 10.15244/pjoes/63657	<i>Experimental Study on Maize Cob Trickling Filter-Based Wastewater Treatment System: Design, Development, and Performance Evaluation</i> Imran Ali, Zahid M. Khan, Muhammad Sultan, Muhammad H. Mahmood, Hafiz U. Farid, Mohsin Ali, Abdul Nasir
11.	2017 IF = 1.12	<i>Polish Journal of Environmental Studies</i> eISSN: 2083-5906, ISSN: 1230-1485 Vol. 26, No. 5 (2017), Pages: 1955-1962. DOI: 10.15244/pjoes/69443	<i>Performance Evaluation of Trickling Filter-Based Wastewater Treatment System utilizing Cotton Sticks as Filter Media</i> Mian M. A. Aslam, Zahid M. Khan, Muhammad Sultan, Yasir Niaz, Muhammad H. Mahmood, Muhammad Shoaib, Aamir Shakoor, Maqbool Ahmad
12.	2017 IF = 1.12	<i>Polish Journal of Environmental Studies</i> eISSN: 2083-5906, ISSN: 1230-1485 Vol. 26, No. 6 (2017), Pages: 2431-2444. DOI: 10.15244/pjoes/70627	<i>Identification and Elucidation of the Designing and Operational Issues of Trickling Filter Systems for Wastewater Treatment</i> Imran Ali, Zahid M. Khan, Changsheng Peng, Iffat Naz, Muhammad Sultan, Mohsin Ali, Muhammad H. Mahmood, Yasir Niaz

13.	2018 IF = 1.12	<i>Polish Journal of Environmental Studies</i> eISSN: 2083-5906, ISSN: 1230-1485 Vol. 27, No. 5 (2018), PP. 2337-2348. DOI: 10.15244/PJOES/78678	<i>Investigating Hydrological Responses and Adaptive Operation of a Hydropower Station under a Climate Change Scenario</i> Muhammad Zaman, Shouqi Yuan, Junping Liu, Ijaz Ahmad, Muhammad Sultan, Muhammad U. Qamar, Muhammad Saifullah, Muhammad Adnan, Muhammad N. Anjum, Muhammad I. Nawaz, Imran Ali
14.	2018 IF = 1.12	<i>Polish Journal of Environmental Studies</i> eISSN: 2083-5906, ISSN: 1230-1485 Vol. XX, No. XX, 2018, pp: XXX.	<i>Removal of Crystal Violet and Eriochrome Black T dyes from Aqueous Solutions by Magnetic Nanoparticles Biosynthesized from Leaves Extract of Fraxinus Chinensis Roxb</i> Imran Ali, Changsheng Peng, Zahid M. Khan, Muhammad Sultan, Iffat Naz, Mohsin Ali, Hafiz U. Farid, Muhammad H. Mahmood, Rameez Ahsen
15.	2018 IF = 1.12	<i>Polish Journal of Environmental Studies</i> eISSN: 2083-5906, ISSN: 1230-1485 Vol. XX, No. XX, 2018, pp: XXX.	<i>Wastewater Evaluation for Multan (Pakistan): Characterization and Agricultural Reuse</i> Zahid M. Khan, Rana M.A. Kanwar, Hafiz U. Farid, Muhammad Sultan, Muhammad Arsalan, Maqbool Ahmad, Mian M.A. Aslam, Amir Shakoor
16.	2018 IF = 1.092	<i>Arabian Journal for Science and Engineering (Springer)</i> DOI: 10.1007/s13369-018-3441-6. pp	<i>Green Synthesis of Phytogenic Magnetic Nanoparticles and their Applications in the Adsorptive Removal of Crystal Violet from Aqueous Solution</i> Imran Ali, Changsheng Peng, Zahid M. Khan, Muhammad Sultan, Iffat Naz
17.	2018 IF = 0.68	<i>Pakistan Journal of Agricultural Sciences</i> Vol. 55(3), 635-644; 2018 ISSN (Print) 0552-9034, ISSN (Online) 2076-0906 DOI: 10.21162/PAKJAS/18.4909	<i>Development of Groundwater Flow Model (MODFLOW) to Simulate the Escalating Groundwater Pumping in the Punjab, Pakistan</i> Aamir Shakoor, Muhammad Arshad, Riaz Ahmad, Zahid Mahmood Khan, Uzair Qamar, Hafiz U. Farid, Muhammad Sultan, Fiaz Ahmad
18.	2012 IF = 0.68	<i>Pakistan Journal of Agricultural Sciences</i> 01/2012; 49(4):527-531 ISSN (Print) 0552-9034, ISSN (Online) 2076-0906	<i>Evaluation of Bio-fertilizer Application to Ameliorate the Environment and Crop Production</i> Abdul Nasir, M. U. Khalid, S. Anwar, Ch. Arslan, M. J. Akhtar, Muhammad Sultan
19.	2018 IF = 0.61	<i>Adsorption Science & Technology</i> Vol. 36, No. 1-2; pp: 311-326. DOI:	<i>Performance Evaluation of Hydrophilic Organic Polymer Sorbents for Desiccant Air-Conditioning Applications</i>

		https://doi.org/10.1177/0263617417692338	Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama, Zahid M. Khan
20.	2018 ESCI-Indexed (ISI, Web of Science, Master List)	<i>Journal of Engineering Science & Technology</i> ISSN: 1823-4690 March 2018, Volume 13 Issue 3. pp: 693 - 703 (Emerging Sources Citation Index, ISI, Web of Science, Master List)	<i>Solar assisted evaporative cooling based passive air-conditioning system for agricultural and livestock applications</i> Muhammad Sultan, Takahiko Miyazaki, Muhammad H. Mahmood, Zahid M. Khan
21.	2015 ISI Indexed Journal	<i>Advances in Environmental Biology (ISSN-1995-0756 EISSN-1998-1066)</i> 09/2015; 9(18):53-58.	<i>Impact of Sewage and Industrial Effluents on Water Quality in Faisalabad, Pakistan</i> Muhammad Yamin, Abdul Nasir, Muhammad Sultan, Wan Ishak Wan Ismail, Ramin Shamshiri, Farah Naz Akbar
22.	2015 Elsevier Journal	<i>Procedia Engineering (Elsevier)</i> Volume 118, 2015, Pages 185-192. DOI: http://dx.doi.org/10.1016/j.proeng.2015.08.417	<i>Steady-state Analysis on Thermally Driven Adsorption Air-conditioning System for Agricultural Greenhouses</i> Muhammad Sultan, Takahiko Miyazaki, Bidyut B. Saha, Shigeru Koyama, Valeriy S. Maisotsenko
23.	2016 HEC Indexed Journal	<i>Journal of Engineering & Applied Sciences (ISSN: 1023-862X - eISSN 2518-4571); pp: 59-66</i> Vol. 35 No. 1 January - June 2016.	<i>Close and open cycle adsorption kinetics: Development of correlation for desiccant air-conditioning</i> Muhammad Sultan, Muhammad H. Mahmood, Takahiko Miyazaki, Shigeru Koyama, Zahid M. Khan
24.	2018 Scopus Indexed Journal	<i>Evergreen- Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy (ISSN: 1884-6300)</i> 03/2018; 05(01): 33-42.	<i>Steady-state Investigation of Desiccant Drying System for Agricultural Applications</i> Shazia Hanif, Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama
25.	2016 Scopus Indexed Journal	<i>Evergreen- Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy (ISSN: 1884-6300)</i> 03/2016; 03(01): 12-17.	<i>Desiccant Air-Conditioning System for Storage of Fruits and Vegetables: Pakistan Preview</i> Muhammad H. Mahmood, Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama
26.	2014 Scopus Indexed Journal	<i>Evergreen- Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy (ISSN: 1884-6300)</i> 09/2014; 01(02): 5-11.	<i>Experimental Study on Carbon Based Adsorbents for Greenhouse Dehumidification</i> Muhammad Sultan, Ibrahim I. El-Sharkawy, Takahiko Miyazaki, Bidyut B. Saha, Shigeru Koyama

27.	2014	<i>International Journal of Environment</i> (ISSN: 2186-6872) 01/2014; 4(1): 1-10.	<i>Utilization of Desiccant Air-Conditioning System for Improvement in Greenhouse Productivity: A Neglected Area of Research in Pakistan</i> Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama, Bidyut Baran Saha:
28.	2017	<i>European Journal of Engineering Research and Science</i> (ISSN: 2506-8016) 01/2017; 02(01): 76-79.	<i>Alternative Air-Conditioning Options for Developing Countries</i> Muhammad Kashif, Muhammad Sultan, Zahid M. Khan

International/National Conferences

Sr. No.	Year / Country	Details of Conference Papers	
29.	August, 2017 Tokyo, Japan	Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama <i>Numerical Simulation Of Desiccant Air-Conditioning System For Agricultural Greenhouses</i> International Sorption Heat Pump Conference (ISHPC-2017), Tokyo, Japan, 7-10/08/2017 (organized by JSRAE, JAPAN). http://biz.knt.co.jp/tour/2017/ISHPC2017/index.html	
30.	May, 2015 Chicago, USA	Muhammad Sultan, Takahiko Miyazaki, Bidyut B. Saha, Shigeru Koyama, Valeriy S. Maisotsenko <i>Steady-State Analysis on Thermally Driven Adsorption Air-Conditioning System for Agricultural Greenhouses</i> International Conference on Sustainable Design, Engineering and Construction (ICSDEC-2015) –Elsevier, Chicago, USA, 05/2015	
31.	August, 2015 Yokohama, Japan	Muhammad Sultan, Takahiko Miyazaki, Bidyut B. Saha, Shigeru Koyama <i>Optimization of adsorption isotherm taxonomy for open-cycle desiccant air-conditioning applications</i> The 24th IIR International Congress of Refrigeration (ICR-2015), Yokohama, Japan, 08/2015 (pp. 3001-3008). Published by International Institute of Refrigeration. DOI: 10.18462/iir.icr.2015.0516. ISBN# 9782362150128 (Electronic)	
32.	May, 2014 Jeju, Korea	Muhammad Sultan, Ibrahim I. El-Sharkawy, Takahiko Miyazaki, Bidyut B. Saha, Shigeru Koyama <i>A study on adsorption of water onto carbon based adsorbents</i> 7th Asian Conference on Refrigeration and Air Conditioning (ACRA 2014), Jeju, South Korea, 05/2014	
33.	November, 2013 Shanghai, China	Muhammad Sultan, Kenta Yoshida, Ibrahim I. El-Sharkawy, Takahiko Miyazaki, Bidyut B. Saha, Shigeru Koyama <i>Study on open cycle adsorption cooling system based on low temperature regeneration</i> Cross Straits Symposium on Energy and Environmental Science and Technology (CSS-EEST 2013), Shanghai Jiao Tong University, China, 11/2013	
34.	August, 2013	Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama, Bidyut B. Saha	

	Fukuoka, Japan	<i>Consideration of Solid Desiccant Dehumidification and Air Conditioning System for Greenhouses of Pakistan: A Feasibility Study</i> International Conference on Green Energy and Technology (ICGET-2013), Fukuoka, Japan, 08/2013
35.	November, 2017 Fukuoka, Japan	Shazia Hanif, Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama <i>Study on solid desiccant system for low-temperature drying applications</i> The 19 th Cross Straits Symposium on Materials, Energy and Environmental Science and Technology (CSS-EEST19), Kyushu University, Fukuoka, Japan (30 Nov. to 01 Dec. 2017) [Best Paper Award]
36.	October, 2015 Waseda, Japan	Muhammad H. Mahmood, Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama <i>Evaluation of desiccant air-conditioning applicability for agricultural sector of Pakistan</i> 90 th Annual Conference of Japan Society of Refrigerating and Air Conditioning Engineers (JSRAE-2015), Waseda University, Japan, 10/2015
37.	September, 2013 Fukuoka, Japan	Muhammad Sultan, Kenta Yoshida, Ibrahim I. El-Sharkawy, Takahiko Miyazaki, Bidyut B. Saha, Shigeru Koyama <i>Potential of desiccant air conditioning system for greenhouses in Pakistan</i> Poster presentation at Int. Symposium on Innovative Materials for Processes in Energy Systems (IMPRES 2013), Kyushu University, Japan, 09/2013
38.	September, 2014 Saga, Japan	Skander Jribi, Muhammad Sultan, Ibrahim I. El-Sharkawy, Takahiko Miyazaki, Bidyut B. Saha, Shigeru Koyama, Tomohiro Maruyama, Shinnosuke Maeda, Takashi Nakamura <i>Experimental adsorption isotherms and adsorption cooling cycle performance of organic polymer sorbent-water pair</i> Annual conference of Japan Society of refrigeration and air-conditioning (JSRAE 2014), Saga University, Japan, 09/2014
39.	October, 2015 Fukuoka, Japan	Muhammad H. Mahmood, Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama <i>Study on desiccant air-conditioning system for agricultural product storage in Pakistan</i> Intellectual Exchange and Innovation Conference on Engineering & Sciences (IEICES-2015), Kyushu University, Japan, 10/2015
40.	July, 2016 Indiana, USA	Muhammad H. Mahmood, Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama <i>Theoretical and Experimental Analysis of Desiccant Air Conditioning System for Storage of Agricultural Products</i> 16 th International Refrigeration and Air Conditioning Conference at Purdue, 07/2016, At West Lafayette, Indiana, USA
41.	March, 2017 Fukuoka, Japan	Muhammad H. Mahmood, Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama <i>Scope of Nano/Micro Polymeric Materials for Farm Air-Conditioning Applications</i> 6 th International Symposium on Micro and Nano Technology (ISMNT-6), 03/2017 held at Kyushu University, Fukuoka Japan
42.	March, 2017 Jeju, Korea	Muhammad H. Mahmood, Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama <i>Low cost technologies for agricultural product storage: Prospective and challenges</i> Asian Conference on Thermal Sciences (ACTS-2017), 03/2017 held at Jeju, South Korea
43.	October, 2017	Shazia Hanif, Muhammad Sultan*, Takahiko Miyazaki, Shigeru Koyama

	Fukuoka, Japan	<i>Effect of drying air parameters on energy consumption in desiccant grain drying</i> 3 rd International Exchange and Innovation Conference on Engineering & Sciences (IEICES-2017), Kyushu University, Fukuoka, Japan, October 19-20, 2017
	June, 2016	Muhammad H. Mahmood, Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama
44.	Yokohama, Japan	<i>Experimental Investigation of Solid Desiccant Air-Conditioning System for Agriculture based Applications</i> The Proceedings of the National Symposium on Power and Energy Systems (SPES2016), Yokohama, Japan. 06/2016, Vol. 21 (ISSN: 2424-2950). DOI: http://doi.org/10.1299/jsmpes.2016.21.C114 https://www.jstage.jst.go.jp/article/jsmpes/2016.21/0/2016.21_C114/ article
	April, 2018	Hassan Niaz, Muhammad Sultan, Zahid Mahmood Khan, Muhammad Hamid Mahmood, Yasir Niaz
45.	Quetta, Pakistan	<i>Thermodynamic investigation of M-cycle assisted open-cycle desiccant air conditioning systems</i> 1 st International Conference on Advances in Engineering and Technology (ICAET-2018) held at: BUIITEMS, Quetta, Pakistan [ISBN# 978-969-26266-0-5]
	April, 2018	Faizan Shabir, Muhammad Sultan, Redmond R. Shamshiri, Zahid M. Khan
46.	Quetta, Pakistan	<i>Investigation of carbon based adsorbents for the development of thermally-driven adsorption cooling systems</i> 1 st International Conference on Advances in Engineering and Technology (ICAET-2018) held at: BUIITEMS, Quetta, Pakistan [ISBN# 978-969-26266-0-5]
	November, 2017	Muhammad Kashif, Muhammad Sultan, Takahiko Miyazaki, Zahid M. Khan, Muhammad H. Mahmood
47.	Lahore, Pakistan (IEEE, Scopus Indexed)	<i>Investigation of Maisotsenko cycle (M-cycle) air-conditioning system for Multan (Pakistan)</i> IEEE International Conference on Energy Conservation and Efficiency (ICECE-2017), pp. 22-25, organized by University of Engineering and Technology (UET), Lahore, 22-23 November 2017 Indexed by Scopus, Electronic ISBN# 978-1-5386-3606-0, CD-ROM ISBN# 978-1-5386-3605-3. DOI: 10.1109/ECE.2017.8248823 http://ieeexplore.ieee.org/abstract/document/8248823/
	November, 2016	Muhammad Sultan, Takahiko Miyazaki, Hassan Niaz, Faizan Shabir, Sahrish Ashraf, Zahid M. Khan, Muhammad H. Mahmood, Hafiz M.U. Raza
48.	Jamshoro, Pakistan	<i>Thermodynamic assessment of solar chimney based air-conditioning system for agricultural and livestock applications</i> 4 th International Conference on Energy, Environment and Sustainable Development 2016 (EESD-2016), held at Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan, ISBN# 978-969-7710-00-3.
	November, 2015	Muhammad Sultan, Muhammad H. Mahmood, Takahiko Miyazaki, Shigeru Koyama, Zahid M. Khan, Abdul Nasir
49.	Faisalabad, Pakistan	<i>Role of organic polymer sorbents in desiccant air-conditioning: Characterization of sorption properties and dynamic simulation</i> International Workshop on Renewable Energy Technologies for Community Development in Pakistan, University of Agriculture, Faisalabad, 11/2015
50.	May, 2016	Muhammad Sultan, Muhammad H. Mahmood, Takahiko Miyazaki, Shigeru Koyama, Zahid M. Khan
		<i>Dynamic simulation of desiccant air-conditioning cycle using organic polymer sorbents</i>

	Multan, Pakistan	1 st National Conference on Agricultural Engineering & Sciences (NCAES-2016), Bahauddin Zakariya University, Multan, 05/2016 [Best Paper Award]
51.	March, 2016 Lahore, Pakistan	Muhammad Sultan, Muhammad H. Mahmood, Takahiko Miyazaki, Shigeru Koyama, Zahid M. Khan <i>Investigation of Adsorption Equilibrium and Kinetics of Polymer Sorbent/Water Pairs for the Development of Desiccant Air-Conditioning System</i> 5 th Invention to Innovation Summit, Punjab University, Lahore, Organized by Institute of Research Promotion- IRP], 03/2016
52.	April, 2016 Faisalabad, Pakistan	Muhammad Sultan, Muhammad H. Mahmood, Takahiko Miyazaki, Shigeru Koyama, Zahid M. Khan <i>Role of adsorption cooling for Precision Agriculture in Pakistan</i> 2 nd National Stakeholder's Conference on 'Current Status & Future Prospects of Adopting Precision Agriculture in Pakistan's Farm Setting', University of Agriculture, Faisalabad, 04/2016
53.	May, 2016 Multan, Pakistan	Muhammad Sultan, Takahiko Miyazaki, Shigeru Koyama, Zahid M. Khan <i>Close and open cycle water vapor sorption kinetics: Development of correlation for desiccant air-conditioning application</i> 1 st National Conference on Agricultural Engineering & Sciences (NCAES-2016), Bahauddin Zakariya University, Multan, 05/2016
54.	March, 2016 Lahore, Pakistan	Muhammad Sultan, Muhammad H. Mahmood, Takahiko Miyazaki, Shigeru Koyama, Zahid M. Khan <i>Evaluation of Thermally Driven Air-Conditioning Systems for Agricultural Applications</i> 5 th Invention to Innovation Summit, Punjab University, Lahore, Organized by Institute of Research Promotion- IRP], 03/2016
55.	November, 2015 Faisalabad, Pakistan	Muhammad Sultan, Muhammad H. Mahmood, Takahiko Miyazaki, Shigeru Koyama, Zahid M. Khan, Faizan Majeed <i>Desiccant air-conditioning for agricultural greenhouses –Role of solid adsorbents</i> International Workshop on Renewable Energy Technologies for Community Development in Pakistan, University of Agriculture, Faisalabad, 11/2015
56.	May, 2016 Multan, Pakistan	Imran Ali, Zahid M. Khan, Muhammad Sultan <i>Maize Cobs Trickling Filter (MCTF): An Emerging Wastewater Treatment Technology for Pakistan</i> 1 st National Conference on Agricultural Engineering & Sciences (NCAES-2016), Bahauddin Zakariya University, Multan, 05/2016
57.	May, 2016 Multan, Pakistan	Muhammad Kashif, Muhammad I. Sabar, Muhammad Sultan, Zahid M. Khan, Rameez Ahsen, Rana M. Asif, Muhammad Arsalan <i>Solar energy for Pakistan: Prospects and challenges</i> 1 st National Conference on Agricultural Engineering & Sciences (NCAES-2016), Bahauddin Zakariya University, Multan, 05/2016
58.	May, 2016 Multan, Pakistan	Rameez Ahsen, Atiq ur Rehman, Muhammad H. Mahmood, Muhammad Sultan, Muhammad Kashif, Zahid M. Khan <i>Experimental study on groundwater quality of Multan Pakistan</i> 1 st National Conference on Agricultural Engineering & Sciences (NCAES-2016), Bahauddin Zakariya University, Multan, 05/2016
59.	May, 2016	Rana M. Asif, Zahid M. Khan, Muhammad Sultan <i>Challenges and management of wastewater irrigation in Pakistan</i>

	Multan, Pakistan	1 st National Conference on Agricultural Engineering & Sciences (NCAES-2016), Bahauddin Zakariya University, Multan, 05/2016
60.	March, 2016 Lahore, Pakistan	Mian M. Ahson Aslam, Zahid M. Khan, Muhammad Sultan, Imran Ali, Muhammad Arsalan <i>Locally Developed Technology using Agri-Waste (Cotton Sticks) as Biogenic Packing Material in Trickling Filter for Wastewater Treatment in Pakistan</i> 5 th Invention to Innovation Summit, Punjab University, Lahore, Organized by Institute of Research Promotion- IRP], 03/2016
61.	November, 2015 Faisalabad, Pakistan	Faizan Majeed, Zahid M. Khan, Anjum Munir, Muhammad Sultan, Hafiz U. Farid, Aamir Shakoor, Aftab Nazeer <i>Performance evaluation of solar water pumping system for irrigation: A case study in Gujranwala (Pakistan)</i> International Workshop on Renewable Energy Technologies for Community Development in Pakistan, University of Agriculture, Faisalabad, 11/2015
62.	May, 2016 Multan, Pakistan	Rameez Ahsen, Zahid M. Khan, Imran Ali, Hafiz U. Farid, Muhammad Sultan <i>Mapping Wheat and Cotton Planting area through Analysis of Satellite Imagery: A Case Study for Multan District.</i> 1 st National Conference on Agricultural Engineering & Sciences (NCAES-2016), Multan, 05/2016
63.	March, 2016 Lahore, Pakistan	Rameez Ahsen, Zahid M. Khan, Muhammad Sultan <i>Management of Land through Satellite Imagery and Current Land-Use Land-Cover Mapping of Multan Region</i> 5 th Invention to Innovation Summit, Punjab University, Lahore, Organized by Institute of Research Promotion- IRP], 03/2016

Books/Book Chapters

Sr. No.	Year	Details of Publication
64.	2017	Muhammad Sultan, Takahiko Miyazaki <i>Book Chapter: Energy-Efficient Air-Conditioning Systems for Nonhuman Applications</i> <i>Book: Refrigeration</i> Pages: 97-117 ; ISBN# 978-953-51-3498-5 ; ISBN(Print)# 978-953-51-3497-8 Published on August 30, 2017 by InTechOpen indexed by ISI Thomson Reuters DOI: http://dx.doi.org/10.5772/intechopen.68865 URL: https://www.intechopen.com/books/refrigeration/energy-efficient-air-conditioning-systems-for-nonhuman-applications#article-front
65.	2016	Muhammad Sultan, Zahid Mahmood Khan Role: Editor <i>Abstract Book of NCAES-2016: 1st National Conference on Agricultural Engineering & Sciences (30-31, May, 2016)</i> Published by Department of Agricultural Engineering, Bahauddin Zakariya University, Multan

Other Publications

Sr. No.	Year	Details of Publication
66.	2017	<p><i>Maisotsenko Cycle: A Solution for Global Energy Crisis</i> Article in Magazine: "Agricultural Engineering Today", Vol. 1 Issue: Jan-Feb (2017): An official E-Magazine of Agricultural Engineering Department, Bahauddin Zakariya University, Multan</p>
67.	2017	<p><i>Development of Maisotsenko Cycle (M-cycle) Based Evaporative Cooling System</i> Muhammad Sultan, Zahid M. Khan, Muhammad Kashif Innovation symposium on DICE: Energy and Water 2017 Organized by Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan on 12-13 December 2017. *DICE: Distinguished Innovations, Collaboration & Entrepreneurship</p>
68.	2017	<p><i>Thermally-driven adsorption air-conditioning system for greenhouses</i> Article in Magazine: "Agricultural Engineering Today", Vol. 1 Issue: July-Dec (2017): An official E-Magazine of Agricultural Engineering Department, Bahauddin Zakariya University, Multan</p>