Curriculum Vitae

Name: Hussam Hesham AL-BILBISI (Ph.D.)
Professor of Remote Sensing & GIS

Nationality: Jordanian

Languages: **Arabic (Mother Language)**
English (Excellent)
Japanese (speaking and hearing Good) (reading and writing Poor)

Current Address: Geography Department / School of Arts
The University of Jordan
Amman 11942 Jordan
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Education-Academic Profile

April 2001 – March 2004   (PhD) Remote Sensing & GIS
Center for Environmental Remote Sensing (CEReS)
Graduate School of Science and Technology
Chiba University-Japan.

Oct. 1999 – March 2001   Research Student
Center for Environmental Remote Sensing (CEReS)
Chiba University-Japan.

Feb. 1989 – Jan. 1992   (M.Sc) Geology
Earth and Environmental Sciences Department.
Yarmouk University- Jordan.

Feb. 1985 – Jan. 1989   (B.Sc) Earth and Environmental Sciences
Earth and Environmental Sciences Department.
Yarmouk University- Jordan.

Professional Work

July 2019 – Date	Professor of Remote Sensing & GIS Geography Department, School of Arts The University of Jordan, Amman- Jordan
March 2012 – June 2019	Associate Professor of Remote Sensing & GIS Geography Department, School of Arts The University of Jordan, Amman- Jordan
Sept. 2014 – Sept. 2015	Associate Professor of Remote Sensing & GIS Geography Department Mu'tah University, Karak- Jordan
Sept. 2006 – Feb. 2012	Assistant Professor of Remote Sensing & GIS Geography Department The University of Jordan, Amman- Jordan
April 2004 – Aug. 2006	Researcher & Academic Staff Center for Environmental Remote Sensing (CEReS) Chiba University-Japan.
Sept. 1996 – Sept. 1999	Teaching Assistant Earth and Environmental Sciences Department The Hashemite University-Jordan.
Sept. 1996 – Aug. 1998	Consultant Geologist and Geotechnical Engineer SALINI-ITALSTRADE J.V.Co. Karameh Dam Project-Jordan.
Aug. 1994 – Aug. 1996	Senior Geologist and Geotechnical Engineer SALINI-ITALSTRADE J.V.Co. Karameh Dam Project-Jordan.
June 1992 – July 1994	Engineering Geologist Geotechnical Engineering and Material Testing Co. Amman-Jordan.

Research Interests:

Using GIS & Microwave and Optical Remote Sensing Data For:
1- Applications of GIS & Remote Sensing in Land Degradation.
2- Applications of GIS & Remote Sensing in Environmental Studies.
3- Image processing of Remotely Sensed Data.
4- Land Remote Sensing (Change detection & Land degradation).

Publications

1) Alshraifat, Hashem and **AL-BILBISI, Hussam. (2024).** Forest Fire Prediction in northwest Jordan. **An-Najah Research Journal-B-**, Vol. 38, Issue 6. *(In Arabic Language).*

2) **AL-BILBISI, Hussam**; Ghanem, Ali; Abu Sammour, Hssan; and Karagoghly Mohummed. **(2022)**. Analysis of *Al-Marba'anieh* precipitation in Jordan using statistical analysis and GIS (1981-2018). **Journal of Hebron University for Research.** *(In Arabic Language). (Accepted)*

3) Al-Mahadeen, Eman and **AL-BILBISI, Hussam**. **(2021)**. Urban expansion and its impact on rainfed agricultural lands in Karak governorate during the period 1979-2018 Using GIS. **Journal of Al-Hussein University for Research,** Vol.7, No. 3, pp 443-469. *(In Arabic Language).*

4) Arwa Aboislaih; Rima Yaghan; Mustafa M. Al Kuisi; and **Hussam AL-BILBISI**, **(2020)**. Impact of climate change on flash floods using hydrological modelling and GIS: Case study Zarqa Ma'in area. **International Journal of Applied and Natural Sciences (IJANS)**, Vol. 9, Issue 5 pp 29-52.

5) **AL-BILBISI, Hussam**. **(2019)**. Spatial monitoring of urban expansion using satellite remote sensing images: A case study of Amman city, Jordan. **Sustainability** 11, no. 8: 2260.

6) Osama Khalil Abdeljawad and **Hussam Hesham AL-BILBISI, (2019).** Analysis and detection of changes in land cover patterns and compare them with the map of land uses in the AL-Muwaqqar district using satellite imagery and geographic information systems. **DIRASAT: Human and Social Sciences**, Vol. 46, No. 2, pp 245-266 (Amman: The University of Jordan) *(In Arabic Language).*

7) Al- Mohammad, Haifa and **AL-BILBISI, Hussam. (2019).** Estimating soil degradation in the Wadi Al Arab; basin using GIS and Remote Sensing techniques. **DIRASAT: Human and Social Sciences**, Vol. 46, No. 1 (2), pp 125-138 (Amman: The University of Jordan) *(In Arabic Language).*

8) A.Wasfi Lababneh; M. Al Kuisi and **H. AL-BILBISI**, **(2019)**. Hydrological modeling for Al Hasa catchment area using GIS Technique. **International Journal of Engineering Research and Applications**, Vol. 9, Issue 2 (series-1), IJERA pp 38-48.

9) Ibrahim M. Oroud; **Hussam AL-BILBISI** and Tareq M. Alghnmieen, **(2018)**. Recent climate change and its influence on vegetation cover in Wadi Araba North, Jordan. **Jordan Journal of Social Sciences**, Vol. 11, No. 3, pp 347-362. (Amman: The University of Jordan) *(In Arabic Language).*

10) **Hussam Hesham AL-BILBISI, (2018)**. A method for land degradation monitoring in arid and semi-arid regions of northeastern Jordan using Landsat images. **Jordan Journal of Earth and Environmental Science**, Vol. 9, No. 2, pp 102-107. (Zarqa-Jordan: The Hashemite University).

11) Haifa Ahmad Mohammad, **Hussam Hesham AL-BILBISI** and Hassan Yousef Abu Sammour, **(2018)**. Change detection and analysis of the vegetation cover using spectral indices in remote sensing, Wadi Al Arab's case study. **DIRASAT: Human and Social Sciences**, Vol. 45, No. 1, pp 83-97 (Amman: The University of Jordan) *(In Arabic Language)*.

12) Haitham Al Kouri, Nazeeh Almanasyeh and **Hussam AL-BILBISI, (2018)**. Detecting land use changes in Bani Obaid District between 2004 2016 using Geographic Information System and Remote Sensing. **Jordan Journal of Social Sciences**, Vol. 11, No. 2, pp 219-236. (Amman: The University of Jordan) *(In Arabic Language)*.

13) **Hussam AL-BILBISI**, **(2017)**. Land use/cover change detection in arid and semi-arid areas of northeastern Jordan using Landsat images. **Jordan Journal of Social Sciences**, Vol. 10, No. 2, pp 265-278. (Amman: The University of Jordan).

14) Osama K. Abdeljwad and **Hussam H. AL-BILBISI, (2017)**. Development of demographic characteristics of AL Muwaggar District-Amman Governorate. **Al-Manara for Research and Studies Journal**, Vol. 23, No. 2, pp 291-320. (Mafraq-Jordan: Al al-Bayt University) *(In Arabic Language)*.

15) Mohammed Matouq; **Hussam AL-BILBISI**; Tayel El-Hasan and Saeid Eslamian, **(2014)**. GIS application in a changing climate. **In Handbook of Engineering Hydrology**, ed.1, Vol. 2, pp 297-312. London: Taylor and Francis).

16) Haifa Al-Mohammed, **Hussam Al-BILBISI**, and Hasan Abu Sammour, **(2014)**. Monitoring and measuring the changes in the Dead Sea area using remote sensing and GIS applications. **DIRASAT: Human and Social Sciences**, Vol. 41, No. 2, pp 376-391 (Amman: The University of Jordan) (In Arabic Language).

17) Mohammed Matouq, Tayel El-Hasan, **Hussam AL-BILBISI**, Monther Abdelhadi, Muna Hindiyeh, Saeid Eslamian, and Salman Duheisat, **(2013)**. The climate change implication on Jordan: A case study using GIS and Artificial Networks for weather forecasting. **Journal of Taibah University for Science**, Vol. 7, Issue 2, pp 44-55. (Amsterdam: Elsevier).

18) **Hussam AL-BILBISI**, **(2012)**. A two decades land use/cover change detection and land degradation monitoring in central Jordan using satellite images. **Jordan Journal of Social Sciences**, Vol. 5, No. 1, pp 133-149. (Amman: The University of Jordan).

19) Ryutaro Tateishi, Bayaer Uriyangqai, **Hussam AL-BILBISI**, Mohamed Aboel Ghar, Javzandulam Tsend-Ayush, Toshiyuki Kobayashi, Alimujiang Kasimu, Nguyen Hoan, Adel Shalaby, Bayan Alsaaideh, Tesevengee Enkhzaya, Gegentana, Hiroshi P. Sato, **(2011)**. Production of global land cover data – GLCNMO, **International Journal of Digital Earth**, Vol. 4, No.1, pp 22-49. (London: Taylor and Francis).

20) Faris Jaber AL-SALLAL and **Hussam Hesham AL-BILBISI, (2011)**. A GIS and remote sensing based integrated approach to detect land use/cover dynamics in Sahab district (Central Jordan). **Abahth Al-Yarmouk "Hum.&Soc.Sci"**, Vol. 27, No. 3, pp 2345-2362. (Jordan: Yarmouk University).

21) **Hussam AL-BILBISI** and Zeyad MAKHAMREH, **(2010)**. A comparison of pixel-based and object-based classification approaches in arid and semi-arid areas of Dead Sea region using Landsat imagery, **DIRASAT: Human and Social Sciences**, Vol. 37, No. 3, pp 649-659. (Amman: The University of Jordan).

22) Rokhmatuloh, R. Tateishi, **H. AL-BILBISI**, K. Arihara, T. Kobayashi, D. Nitto, S.A Lee, K. Hirabayashi, Y.Q. Lu, C. Lu, T. Enkhzaya, B. Erdene, Ts. Javzandulam, E. Migita, N. Soliman, Y. Ouma, N.T. Hoan and K. Alimujiang, **(2010)**. Global percent tree cover mapping using regression tree method: An advantage of QuickBird images as training data. **Asian Journal of Geoinformatics,** Vol. 10, No. 2, pp 21-28. (Thailand: Asian Remote Sensing Research Information Network).

23) T. Ngigi, R. Tateishi, **H. AL-BILBISI**, M. Gachari and E. Waithaka, **(2009)**. Applicability of the mix-unmix classifier in percentage of tree and soil cover mapping, **International Journal of Remote Sensing**, Vol. 30, No. 14, pp 3637-3648. (London: Taylor and Francis)

24) **Hussam AL-BILBISI, (2009).** Monitoring of land degradation in central Jordan using remote sensing imagery**, Proceedings (in CD-ROM) of The International Conference On Remote Sensing Technologies and Geographic Information Systems,** October 5th-7th, Tripoli-Libya.

25) **Hussam AL-BILBISI, (2009).** Preprocessing of Global MODIS Satellite Imagery**, Proceedings of The Remote Sensing and GIS Applications Symposium,** April 20th, pp E36-E51, The University of Jordan, Jordan.

26) R. Tateishi, Bayaer, M. A. Ghar, **H. AL-BILBISI** and others **(2008)**. A New Global Land Cover Map, GLCNMO, **Proceedings of the 21 congress of the International Society for Photogrammetry and Remote Sensing (ISPRS)**, No. 21, pp 1369-1372 Beijing, China.

27) Ryutaro Tateishi, Javzandulam Tsend-Ayush, Mohamed Aboel Ghar, **Hussam AL-BILBISI** and Takaki Okatani, **(2007)**. Sampling method for validation of large area land cover mapping, **Journal of the Remote Sensing Society of Japan (RSSJ)**, Vol. 27, No. 3, pp 195-204. (Tokyo, Japan, RSSJ).

28) Rokhmatuloh, Daisuke Nitto, **Hussam AL-BILBISI**, Kota Arihara and Ryutaro Tateishi, **(2007)**. Estimating percent tree cover using regression tree method with very-high-resolution QuickBird images as training data, **Journal of the Remote Sensing Society of Japan (RSSJ)**, Vol. 27, No. 1, pp 1-12. (Tokyo, Japan, RSSJ).

29) Ahmad AL-HANBALI, **Hussam AL-BILBISI**, Akihiko, KONDOH, **(2006)**. Monitoring the Dead Sea Area Changes Using Remote Sensing and GIS. **Journal of Japan Society of Hydrology & Water Resources**, 19(6), pp 483-490. (Tokyo, Japan, JSHW).

30) **Hussam AL-BILBISI** and Ryutaro Tateishi, **(2006)**. Land degradation monitoring in arid and semi-arid area of northeastern Jordan using Landsat (TM) data, **Proceedings of the Annual Conference of the Remote Sensing Society of Japan (RSSJ)**, 40, pp 93-94, (Tokyo, Japan, RSSJ).

31) Ryutaro Tateishi, Javzandulam Tsend-Ayush, Mohamed Aboel Ghar and **Hussam AL-BILBISI**, **(2006)**. Better sampling method for validation of land cover classification, **Proceedings of the Annual Conference of the Remote Sensing Society of Japan (RSSJ)**, 40, pp 55-56, (Tokyo, Japan, RSSJ).

32) Rokhmatuloh, **H. AL-BILBISI,** K. Arihara, T. Kobayashi. D. Nitto, B. Erdenee, K. Hirabyashi, T. A. Javzandulam, S.A. Lee, E. Migita, N. Soliman, Y. Ouma and Ryutaro Tateishi, **(2006)**. Application of regression tree method for continental percent tree cover mapping, **Proceedings of the Annual Conference of the Remote Sensing Society of Japan (RSSJ)**, 40, pp 9-10, (Tokyo, Japan, RSSJ)

33) Rokhmatuloh, Nitto, D., **AL-BILBISI, H.** and Tateishi. R., **(2005)**. Percent tree cover estimation using regression tree method: a case study of Africa with very-high resolution QuickBird images as training data, **Geoscience and Remote Sensing Symposium IEEE 2005 International, IGARSS 05**. Vol. 3, pp 2157-2160, (U.S.A).

34) **Hussam AL-BILBISI**, Ryutaro Tateishi, Rokhmatuloh and Kota Arihara, **(2005)**. Pre-processing of global MODIS data from USGS, **Proceedings of the Annual Conference of the Remote Sensing Society of Japan (RSSJ)**, 39, pp 83-84, Tokushima, Japan.

35) Rokhmatuloh, **Hussam AL-BILBISI**, Arihara Kota, Toshiyuki Kobayashi, Ryutaro Tateishi, **(2005)**. Application of regression tree method for estimating percent tree cover of Asia with Quickbird images as training data, **Proceedings of The 11th International Symposium on Remote Sensing**, pp 213-222, Chiba University, Chiba, Japan.

36) A. Al-Hanbali, **H. AL-BILBISI**, A. Kondoh, **(2005)**. The environmental problem of the Dead Sea using remote sensing and GIS techniques, **Proceedings of The 11th International Symposium on Remote Sensing**, pp 163-168, Chiba University, Chiba, Japan.

37) Rokhmatuloh, Daisuke Nitto, **Hussam AL-BILBISI** and Ryutaro Tateishi, **(2005)**. Percent tree cover estimation using regression tree method, **Proceedings (in CD-ROM) of the IGARSS 2005,** July 25-29. Seoul, Korea

38) **H. AL-BILBISI**, R. TATEISHI, and J. TETUKO S.S, **(2004)**. A technique to estimate topsoil thickness in arid and semi-arid areas of north-eastern Jordan using synthetic aperture radar data, **International Journal of Remote Sensing**, Vol. 25, No. 19, pp 3873-3882. (London: Taylor and Francis)

39) **Hussam AL-BILBISI** and Ryutaro Tateishi, **(2004)**. Combined use of spectral and textural features of Landsat-TM and JERS-1 SAR imagery for land use/land cover classification in northeastern Jordan, **Proceedings of Indonesian-Japan Joint Scientific Symposium**, pp 95-100, Chiba University, Chiba, Japan.

40) **Hussam AL-BILBISI** and Ryutaro Tateishi, (**2003)**. Using satellite remote sensing data to detect land use/cover changes and to monitor land degradation in central Jordan, **Journal of the Japan Society of Photogrammetry and Remote Sensing (JSPRS)**, Vol. 42, No. 6, pp 4-18. (Tokyo, JSPR).

41) **Hussam AL-BILBISI** and Ryutaro Tateishi, **(2003)**. Land cover classification with textural analysis using multi-temporal JERS-1 (SAR) L-band in Northeastern Jordan, **Proceedings (in CD-ROM) of Symposium on Environmental Monitoring (SIEM 2003),** Chiba University, Chiba, Japan.

42) **Hussam AL-BILBISI** and Ryutaro Tateishi, **(2002)**. Monitoring of land degradation in northeastern Jordan by remote sensing, **Proceedings (in CD-ROM) of 5th International Symposium on Land Cover /Asia**, Center for Environmental remote Sensing (CEReS), Chiba University, Chiba, Japan.

43) **Hussam AL-BILBISI** and Ryutaro Tateishi, **(2002)**. A study on land use/cover classification using multi-temporal JERS-1 (SAR) L-band in arid and semi arid area. (A case study in northeastern Jordan), **Proceedings (in CD-ROM) of the 23rd Asian Conference on Remote Sensing**, Kathmandu, Nepal.

44) **Hussam AL-BILBISI** and Ryutaro Tateishi, **(2002)**. A study on change detection and monitoring of land degradation in Northeastern Jordan using satellite remote sensing data, **Proceedings of the Annual Conference of the Japan Society of Photogrammetry and Remote Sensing**, pp.63-68, Tokyo, Japan.

45) Al-Akhal, H., **AL-BILBISI, H.**, and Al-Dwairi, I., **(2001)**. Contribution to the Geochemistry, Petrography, and Tectonic Evolution of a Neoproterozoic rock suite from southwest Jordan. **Freiberger Forschungshefte**. C494: pp1-9. Germany.

Book

Nikolai KHARIN, Ryutaro TATEISHI, Peter GUNIN and **Hussam AL-BILBISI, (2004)**, DEGRADATION OF THE DRYLANDS OF NORTHERN AFRICA. Center for Environmental Remote Sensing (CEReS), Chiba University-Japan.

Academic Awards

1- Awarded a scholarship of the Japanese Government-MONBUSHO (Ministry of Education, Science, Sports and Culture) for research student at Center for Environmental Remote Sensing/Chiba University, (from 10-1999 to 3-2001).

2- Awarded a scholarship of the Japanese Government-MONBUSHO (Ministry of Education, Science, Sports and Culture) for PhD Degree in Remote Sensing at Graduate School of Science and Technology/Center for Environmental Remote Sensing Chiba University (from 4-2001 to 3-2004).

Courses Taught:

B.Sc. Courses:
1- Principles of Remote Sensing.
2- Remote Sensing Techniques.
3- Geographic Information Systems **(GIS)**.
4- Principles of Cartography.
5- Digital Thematic Mapping.
6- Geography of Arid Regions.
7-

M.Sc. Course:
Advanced Geographic Information Systems **(GIS)**

Ph.D. Course:
Advanced Remote Sensing
Spatial analysis / GIS

External Activities:

Editorial Board of:
Journal of Ecology & Natural Resources (ISSN: 2578-4994)
(**https://www.medwinpublishers.com/JENR/editorial-board.php**)

Referee for the following Journals:
1- International Journal of Remote Sensing.
2- International Journal of Digital Earth.
3- Asian Journal of GEOINFORMATICS.
4- Dirasat Journal, Jordan University.

Community Services Activities

- Several training courses in Remote Sensing and GIS were conducted for both public and private sectors employees

- Introducing the applications of Remote Sensing and GIS Sciences for colleges and schools students (several times).