EL-KHOURY Hicham
PhD in Computer Science
Univ. Prof. & ICT Consultant

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Professional Experience

- **Assistant Professor of Practice at LAU, IT & Operations Management, Adnan Kassar School of Business, since 2024.**

- **Senior ICT Advisor to CRDP President since 2018**

- Part-Time Instructor at the Lebanese University (approx. 250 teaching hours per year), promoted to the rank of Professor in 2025; from 2014 to 2026

- Online Instructor and Module Pack Developer for the MSc/MBA program at GBSB – Barcelona S.L., from 2021 to 2025

- Part-Time Instructor at USJ, Institute of Business Administration (IGE) actually, from 2018 to 2025.

- Consultant at Tech Hub SAL for the Workforce Program from February 2021 to August 2022

- CAPES ICT Instructor (secondary school teaching certificate) from 2016 to 2018

- CCE Faculty Board Member and Instructor at AUL from Fall 2007 to Fall 2020

- Assistant Laboratory at the Lebanese University from Fall 2006 to Spring 2014

- Computer Instructor at IPNET from 2007 to 2009

Functional Skills & Research Interest

- Director for Master and PhD students
- Expert in AI in Education
- Curriculum Designer

- ICT and Digital Transformation Consultant
- Business Data Analytics consultant
- STEAM and Robotics expert

Projects

Actually

- **CEO and Co-Founder** of Dev-Comet SARL, solutions and digital services startup.

- **CEO and Co-Founder** of Mindscape Academy (Robotics, Coding, AI), an educational non-profit organization https://www.mindscape-lb.org/ | https://www.instagram.com/mindscapelb/

- **Senior ICT Advisor** for CERD Digital Learning Platforms: https://mawaridy.crdp.org/ | CRDP-Ebooks App (IOS – Android - Windows) | https://madristi.mehe.gov.lb/ | CRDP_moodle

- ICT and Technology **Committee Coordinator** for the renewal of the Lebanese Curriculum at CERD

- **Committee Member** for the development of the Lebanese Digital Learning Framework at MEHE

- **Committee Coordinator** for drafting the Lebanese AI Framework Competencies at CERD – MEHE https://www.crdp.org/sites/default/files/2025-10/AI%20Educational%20Framework.pdf

2025

Project manager for Green Glory technology G6-12 books for the Republic of the Congo
Project manager for Green Glory Numerical Technology G1- 12 books in Arabic

2020	Lead Instructor of Workforce Project lead by CSP(Community Support Program) - USAID
2021-2022	Lead Instructor of Workforce Project which was launched by Nucleus Ventures & WOZ Global
Feb 2021	Quality Assessment of CERD's OER policies project https://www.crdp.org/sites/default/files/2023-10/OER_Policy%20english.pdf
Aug 2019	Principal researcher of: "Makerspace research project" for CERD-Lebanon https://www.crdp.org/studies-and-researches/makerspaces
June2017	MOS (Microsoft Office Specialist) and MCE (Microsoft Certified Educator), 6 h/day from 19 till 23 at UL with the collaboration of New Horizons. Fanar – Lebanon.
Dec 2016	"**Implementation, Scripting, and creation of MOOC"** held in Francophone Digital Campus (CNF)-Tripoli of the Middle East Office of AUF in partnership with the Lebanese Association for Scientific Research (LASeR) which was organized a training session on the 7, 8, and 9th of December 2016.
May 2015	**Introduction to Cybersecurity** training held in Lebanese University – faculty of Sciences II with the collaboration of Potech Consulting. Fanar – Lebanon.
July 2009	MCP training (Active Directory Server 2008 – ISA 2005 – Exchange), 6 hours/day from 6 till 30 at SGEC-L (Secrétariat Générale des Ecoles Catholiques) with collaboration of Formatech. Ain Najem – Lebanon.
July till Nov. 2007	Training & Final Project under the direction of IRIT (Institut de Recherche en Informatique de Toulouse), subject: "Implementation of an agent CIM Object Provider in WBEM architecture", Toulouse – France.
April till June 2005	Training & Final Project at Logos firm subject: "development of CSMDK" using Oracle and Jdeveloper 10g, Bliss – Hamra – Lebanon.

Education

2014	**PhD** in computer Sciences / Telecommunications from UPS – Toulouse – III, France
2007	**Master Research** in Modelling & Simulation, Leb. Univ., Beirut, Lebanon
2005	**Teaching diploma** in applied mathematics, option – Computer -Science, Leb. Univ., Fanar, Lebanon

Publications

- *International journals:*
  o Matar, J., El Khoury, H., Charr, JC. *et al.* Biological Sequence Clustering: Novel Approaches and a Comparative Study. *SN COMPUT. SCI.* 6, 369 (**2025**). https://doi.org/10.1007/s42979-025-03905-6
  o Lahoud, C., Moussa, S., Obeid, C., El Khoury, H. A case-based reasoning and ontology-based hybrid recommender system for student orientation in higher education. Education Tech Research Dev (**2025**). https://doi.org/10.1007/s11423-025-10488-9
  o Maroun Abi Assaf, Youakim Badr, Hicham El Khoury, Kablan Barbar. "Graphical Notation and Environment for Generating Declarative Artifact Systems", **submitted** to IJBPIM published by inderscience publishers
  o Matar, J., El Khoury, H., Charr, JC., Guyeux, C., & Chrétien, S. (**2024**). Optimized Spectral Clustering Methods for Potentially Divergent Biological Sequences. Scientific Inquiry and Review (SIR), Vol. 8, No.3. pp. 5887. DOI: 10.32350/sir.83.03
  o Christine Lahoud; Sherin M. Moussa; Charbel Obeid; Hicham El Khoury; Pierre-Antoine Champin. A comparative analysis of different recommender systems for university major and career domain guidance. *Educ Inf Technol* 28, 8733–8759 (**2023**). https://doi.org/10.1007/s10639-022-11541-3
  o Charbel Obeid, Christine Lahoud, Hicham El Khoury, Pierre-Antoine Champin. "A Novel Hybrid Recommender System Approach for Student Academic Advising Named COHRS, Supported by Case-based Reasoning and Ontology". Computer Science and Information Systems (**2022**) volume 19, issue 2, pages: 979 – 1005. https://doi.org/10.2298/CSIS220215011O

- Charbel Obeid, Christine Lahoud, <u>Hicham El Khoury</u>, Pierre-Antoine Champin. "Conceptual Clustering of University Graduate Students' Trajectories Using Formal Concept Analysis: a Case Study in Lebanon." International Journal of Continuing Engineering Education and Life-Long Learning, Inderscience (**2020)**, 30 (1), pp.1. ⟨10.1504/IJCEELL.2020.10027147⟩. ⟨hal-02737553⟩

- Johny Matar, <u>Hicham EL Khoury</u>, Christophe Guyeux, Jean-Claude Charr, Stéphane Chrétien. "SpCLUST: Towards a fast and reliable clustering for potentially divergent biological sequences," Comput. Biol. Med., p. 103439, Sep. **2019**. https://doi.org/10.1016/j.compbiomed.2019.103439

- Abou Assi, K., <u>Khoury, H.</u>, Malek, R., & Naccache, H. (**2018**). L'impact de l'entraînement assisté par ordinateur sur le développement des fonctions exécutives dans le cadre d'un trouble déficitaire de l'attention chez des enfants âgés de 7 à 9 ans. Frantice, 16(2), 12-31.

- Maroun Abi Assaf, Youakim Badr, <u>Hicham El Khoury</u>, Kablan Barbar. "Generating Database Schemas from Business Artifact Models", in IJITCS, IJIT, **2018**, 10 (2), pp.10 – 17. http://www.mecs-press.org/ijitcs/ijitcs-v10-n2/v10n2-2.html.

- <u>Hicham El Khoury</u>, Romain Laborde, François Barrère, Maroun Chamoun, Abdelmalek Benzekri. "A Data Flow Oriented Specification Method for Analyzing Network Security Configurations", in IJIPT, Vol. 8, Nos. 2/3, **2014**. http://www.inderscienceonline.com/doi/abs/10.1504/IJIPT.2014.066378.

- ***International papers:***

- Johny Matar, <u>Hicham EL Khoury</u>, Christophe Guyeux, Jean-Claude Charr. "Revisiting spectral clustering: assessments and extended capabilities" in the 5th IEEE Middle East and North Africa COMMunications Conference *(MENACOMM 2025) / LAU-Byblos, Lebanon* (**2025**)

- M. Abi Assaf, A. Rachini, C. Fares, <u>H. El Khoury</u> and Y. Badr, "Automated Submission of Digital Content to Digital Repositories Through Web API," 2nd International Engineering Conference on Electrical, Energy, and Artificial Intelligence (EICEEAI), Zarqa, Jordan, **2023**, pp. 1-5, doi: 0.1109/EICEEAI60672.2023.10590296

- J. Al Asmar, M. Shraif, <u>H. El Khoury</u>, J. Monhem, "Economic Performance of a 250kW Solar PV System: Application to Lebanon," 4th IEEE Middle East and North Africa COMMunications Conference (MENACOMM), Amman, Jordan, **2022**, pp. 100-105, doi: 10.1109/MENACOMM57252.2022.9998192

- Johny Matar, <u>Hicham EL Khoury</u>, Christophe Guyeux, Jean-Claude Charr. "Impact of Eigensolvers on Spectral Clustering", in the 3rd IEEE Middle East and North Africa COMMunications Conference (MENACOMM **2021**), doi: 10.1109/MENACOMM50742.2021.9678223

- Johny Matar, <u>Hicham El Khoury</u>. "Smart switch (SMITCH-LB) for electricity load balancing and optimization", in the Second International Conference on Energy, Power, Petroleum and Petrochemical Engineering, April 3-5, 2019, Hadath, Lebanon. Publish in IJEETDM, Vol. 5, No. 1, pp. 1-6, **2019**.

- Charbel Obeid, Inaya Lahoud, <u>Hicham El Khoury</u>, Pierre-Antoine Champin. "Ontology-based recommender system in higher education". In the third edition of Educational Knowledge Management workshop, The **2018** Web Conference Companion (WWW 2018), April 23-27, 2018, Lyon, France, ACM, New York, NY, 4 pages. DOI: https://doi.org/10.1145/3178876.3191533 **Cited by 170 references**

- <u>Hicham El Khoury</u>, Romain Laborde, François Barrère, Maroun Chamoun, Abdelmalek Benzekri: "A Specification Method for Analyzing Fine Grained Network Security Mechanism Configurations". in IEEE 6th Symposium on Security Analytics and Automation (SafeConfig **2013**) Washington, D.C., USA. October 16, 2013. Sponsors: IEEE (COMSOC) http://dx.doi.org/10.1109/CNS.2013.6682764

- <u>Hicham El Khoury</u>, Romain Laborde, François Barrère, Maroun Chamoun, Abdelmalek Benzekri: "A Generic Attribute-Based model for Network Security mechanisms configuration and representation". International Conference on Frontier of Computer Science and Technology (FCST-12) Suzhou, China, November 21-23, **2012**. Technical Co-Sponsorship: IEEE, IEEE Computer Society, and IEEE TCSC http://trust.csu.edu.cn/conference/FCST2012/

- <u>Hicham El Khoury</u>, Romain Laborde, François Barrère, Maroun Chamoun, Abdelmalek Benzekri: "A Formal Data Flow-Oriented Model For Distributed Network Security Conflicts Detection". International Conference of Networking and Services (ICNS 2012), St. Maarten, The Netherlands Antilles, 25/03/2012-30/03/2012, Xpert Publishing Service (XPS), p. 20-27, **2012**. http://www.thinkmind.org/index.php?view=article&articleid=icns_2012_1_40_10088

- <u>Hicham El Khoury</u>, Romain Laborde, François Barrère, Abdelmalek Benzekri, Maroun Chamoun: "A Generic Data Flow Security Model". Symposium on Configuration Analytics and Automation (SafeConfig 2011), Arlington, VA, USA, 31/10/2011-01/11/2011, IEEE, p. 1-2, **2011**. http://dx.doi.org/10.1109/SafeConfig.2011.6111671

- François Barrère, Romain Laborde, <u>Hicham El Khoury</u>, Abdelmalek Benzekri. "A formal data flow model to

study network protocol encapsulation inconsistencies" (poster), in: WORLDCOMP'14 (SAM 2014), Las Vegas Nevada, USA, July 21-24, 2014. CSREA Press ISBN: 1-60132-285-2, p. 411-412, **2014**.

o   Hicham El Khoury, Romain Laborde, François Barrère, Abdelmalek Benzekri : « Vers un modèle formel orienté flux de données pour l'analyse de politiques de sécurité réseau ». La-Rochelle-France, 18/05/2011-21/05/2011, in the conference SAR-SSI2011. IEEE Computer Society - Conference Publishing Services, p. 1-7, **2011**.

Conferences, Workshops, & Associations

2025	Attended the United Nations Summer Academy 2025 and achieved a certificate in: "Digital Transformation for Sustainable Development", from 2 – 4 September 2025, Virtual.
	Represented CRDP in Gateways Study Visit – China (14–17 May 2025) https://www.unicef.org/digitaleducation/gateways-study-visit-china
	Participated in the High Level Round Table: "Advancing Digital Learning in Lebanon: Challenges and Opportunities". Organized by UNESCO Regional Office in Beirut on 20 Feb 2025.
2024	Participated in the second edition of **Digital Learning Week** will take place on 2-5 September 2024 at UNESCO Headquarters in Paris.
	Represented MEHE in the Second Education Forum (KEF2) on 1-3 August at Kurdistan Regional Government, Kurdistan.
	Represented CRDP in Gateways Study Visit – Egypt on 14-16 May 2024, Cairo, Egyp. https://www.unesco.org/en/cairo-study-visit
2022	Co-Founding member of Edtechs Syndicate, a non-profit association to support the ICT in Education https://www.facebook.com/EdTechSLebanon/
2019	Co-Founding member of Tammouz center, a non-profit association for studies and training on citizenship https://www.facebook.com/tammouz123
2018	Participated as ICT expert in the 2nd conference titled: "L'Industrie du Contenu Numérique Arabe" organized by the Syrian Virtual University, Damascus, Syria.
	Participated in a workshop titled: "Initiation au Hackathon pédagogique", organized by the "Institut Français du Liban" in collaboration with "réseau Canopé" at USJ for 12 hours.
	Represented the Lebanese University faculty of Pedagogy in the 1st conference titled: "Open Edu Resources" organized by UNESCO at the Regional Office in Beirut in partnership with AUF.
2016	On behalf of the 22nd International Scientific Conference entitled: « The Social Avenues of Research » held on the 14th & the 15th of April 2016 at the Holy Spirit University of Kaslik (USEK). I was the chair of the session "Mathématiques et Informatique".
5 Dec. 2012	Attended the conference : "Devenir Ingénieur de Recherche privé/public" organized by Université Paul Sabatier the main themes concerning "Construction de l'identité professionnelle".
Automne 2009	Participated in a procurement training course under the title "Community Basic Business Skills" organized by the society "REIEF INTERNATIONAL" in partnership with the "USAID" and with collaboration of Ehmej municipality in Jbeil – Lebanon.
Nov 2009	Participated in a regional conference in Jordan, titled "Arab Occupational Classification" with the collaboration of GTZ "Deutsche Gesellschaft für Technische Zusammenarbeit" and "E-TVET Council".
Summer 2005	Attended an Eco Guide training program which is organized by the Ministry of Environment with the collaboration of "UNDP", "Med Wet Coast", and the German company "Hanns Seidel Stifting".
Since 1999	Member of Hboub Sport, Cultural, and Social club. Registered by the Ministry of Youth and Sport, under the number: 243/ad in 1971. I was elected as a secretary of the club in 2003 (for 2 years), then the president from 2005 till 2011 and the vice-president from 2011 till 2013.