



## Khawla Bouafia

**Nationality:** Algerian **Date of birth:** 08/04/1992

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**Home:** Garibaldi Utca 7 , 1054 Budapest (Hungary)

### WORK EXPERIENCE

#### Professor Assistant

**University of : Eötvös Loránd Tudományegyetem - Information Systems Department** [ 31/01/2022 – Current ]

**City:** Budapest

**Country:** Hungary

Teaching activities: courses, labs, and practices :

1. Fintech Lab II ( I am responsible for our Fintech Lab at our department)
2. Development of Financial IT Systems Pr
3. Software Technology L+Pr,
4. Complex Information Systems L+Pr
5. Telecommunication networks L+Pr
6. Thesis Consultation
7. Object-oriented programming L+Pr.
8. Advanced Software Technology

#### Reasercher assistant

**University of : Eötvös Loránd Tudományegyetem - Information Systems Department** [ 01/09/2020 – 31/01/2022 ]

**City:** Budapest

**Country:** Hungary

Research topics:

1. Information systems, and enterprise architecture.
2. The relation between Machine Learning and BP workflow and the application approaches to it
3. Blockchain Solutions for Authorization and Authentication
4. Application of Blockchain Technology in Business Processes
5. Blockchain technologies for transparency in FinTech
6. Machine Learning Approaches on BP Workflow
7. Business process (BP) management
8. BP modeling,
9. Hypergraphs,
10. Dynamic BP,
11. The transformation between BP models,
12. Formal approaches and model checking,

Supervising master\ Bachelor students in labs topics research and thesis

#### French Speaking Service Desk Analyst for Sanofi company

**TATA Consultancy Services (TCS)** [ 11/01/2020 – Current ]

**City:** Budapest

Country: Hungary

1. Excellent troubleshooting and problem-solving skills ( hardware and software);
2. Strong Active Directory
3. Experience in supporting and troubleshooting Office 365
4. Extensive Windows 7/8/10 experience
5. Strong ticket management experience including good time management in service now ;
6. Any experience in supporting MS Exchange is highly desirable
7. Resolution of any issues related to access to applications (Outlook, Microsoft app, SAP, Medical App, ), drivers...
8. Installation of different applications, printers...

## EDUCATION AND TRAINING

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### PhD in Information Science and Technology (Informatics)

*University of : Eötvös Loránd Tudományegyetem (ELTE)* [ 08/09/2016 – 28/01/2022 ]

Address: Pázmány Péter sétány 1/C, 1117 Budapest (Hungary)

### Master In computer science ( academic Computer Science )

*University of 8 May 1945 of Guelma (Algeria)* [ 31/08/2014 – 30/06/2016 ]

Address: Guelma (Algeria)

### Bachelor In Computer Science ( Information Systems)

*University of 8 May 1945 of Guelma* [ 31/07/2011 – 30/06/2014 ]

Address: Guelma (Algeria)

### Scientific Committee of International Conference

*CENTERIS Organizing Committee* [ 15/01/2022 – Current ]

## LANGUAGE SKILLS

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Mother tongue(s): **Arabic**

Other language(s):

#### English

LISTENING B2 READING B2 WRITING C1

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

#### French

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

#### Hungarian

LISTENING A1 READING A1 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1

#### German

LISTENING A1 READING A1 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1

## DIGITAL SKILLS

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Microsoft Office / Outlook / Microsoft Excel / Microsoft Word / Zoom / Microsoft Powerpoint / Google Drive / Latex: advanced user / Network technology / Service-Now

## PROJECTS

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### EFOP project (The European Union, co-financed by the European Social Fund )(EFOP-3.6.3-VEKOP-16-2017- 00002) (EFOP-3.6.3-VEKOP-16-2017-00001))

[ 31/12/2017 – 30/08/2021 ]

Several publications and researchs supported from EFOP project (The European Union, co-financed by the European Social Fund )(EFOP-3.6.3-VEKOP-16-2017- 00002) (EFOP-3.6.3-VEKOP-16-2017-00001))

## Fintech and Artificial Intelligence in Finance Towards a transparent financial industry" (FinAI)

[ 01/09/2021 – Current ]

A project of research was supported by the National Research, Development and Innovation Fund of Hungary, financed under the Thematic Excellence Programme TKP2021-NVA-29 (National Challenges Subprogramme) funding scheme, and by the COST Action CA19130 - "Fintech and Artificial Intelligence in Finance Towards a transparent financial industry" (FinAI)

### ADDITIONAL INFORMATION

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#### Conference Papers:

##### **Publication 1:**

Authors : Molnár Bálint and **Bouafia Khawla**.

Title: Adaptive Case Management and Dynamic Business Process Modeling A Proposal for a document-centric and formal approach

Conference: The 12th AIS 2017, November 9, 2017, Székesfehérvár, Hungary.

Published in: AIS Proceedings.

Link: [http://ais.amk.uni-obuda.hu/proceedings/2017/AIS\\_2017\\_Proceedings.pdf](http://ais.amk.uni-obuda.hu/proceedings/2017/AIS_2017_Proceedings.pdf)

##### **Publication 2:**

Authors: **Bouafia Khawla** and Molnár Bálint.

Title: An FSM Approach for Hypergraph Extraction Based on Business Process Modeling.

Conference: The 3rd CSA 2018, April 2018, Algiers, Algeria.

Published in: Lecture Notes in Networks and Systems, vol 50. Springer, Cham. Link: [https://link.springer.com/chapter/10.1007/978-3-319-98352-3\\_17](https://link.springer.com/chapter/10.1007/978-3-319-98352-3_17)

##### **Publication 3 :**

Authors : **Bouafia Khawla** and Molnár Bálint

Title: Dynamic Business Process: Comparative Models and Workflow Patterns.

Conference: The 11th Conference of Ph.D. Students in Computer Science, CSCS, June 2018.

Published in: Proceedings of the conference.

Link: <http://acta.bibl.u-szeged.hu/id/eprint/61760>

##### **Publication 4:**

Authors: **Bouafia Khawla** and Molnár Bálint.

Title: A Survey on Dynamic Business Processes and Dynamic BP Modelling.

Conference: The 21 ICEIS 2019, 2019, Heraklion, Crete, Greece.

Published in: Proceedings of the 21 ICEIS, Volume 2: ICEIS, 556-563.

Link <https://www.scitepress.org/Link.aspx?doi=10.5220/0007627105560563>

##### **Publication 5:**

Authors: **Bouafia Khawla** and Molnár Bálint.

Title: Opportunities for Supporting Digital Transformation through Modelling Dynamic Processes.

Conference: The 21 ICEIS 2019, 2019, Heraklion, Crete, Greece..

Published in: Proceedings of the 21 DCEIS, 3-9, 2019, Heraklion, Crete, Greece.

Link: <https://heptagon.in/2019/08/14/digital-transformation-through-dynamic-business-processes-modeling>

#### **Publication 6:**

Authors: **Bouafia Khawla** and Molnár Bálint.

Title: Analysis Approach for Enterprise Information Systems Architecture Based on Hypergraph to Aligned Business Process Requirements.

Conference: CENTERIS. November 2019, Sousse, Tunisie

Published: Procedia Computer Science Volume 164, 19-24. Published by Elsevier B.V. **(counted as journal paper)**

Link: <https://www.sciencedirect.com/science/article/pii/S187705091932188>

#### **Publication 7:**

Authors: **Bouafia Khawla** Maxim Kumundzhiev and Molnár Bálint

Title: Application of Models and Hypergraphs on Dynamic Aspects of Business Process Performance Analysis.

Conference: The 13th Joint Conference on Mathematics and Informatics, October 2020.

Journal: published and under journals' standard reviewing (Special issues of journals (Annales)).

Link: <http://macs2020.elte.hu/booklet/macs2020abstractBooklet.pdf>.

#### **Publication 8**

Authors: **Bouafia Khawla** and Molnár Bálint

Title: An Investigative Study on the usability of Machine Learning and Artificial Intelligence on Business Processes

Conference: The ICAI 2023, March 2-4, 2023 - Eger, Hungary

Journal published in a special issue of Annales Mathematicae et Informaticae

Link: <https://icai.uni-eszterhazy.hu/2023/>

### **Journals Publications**

#### **Journal 1:**

Authors : **Bouafia Khawla**, Ali Khebizi and Molnár Bálint.

Title: New Functional Approach to Transforming Abstract Specifications of Web Services Based on FSM from BPEL Programs.

Journal : American Journal of Innovative Research and Applied Sciences. ISSN 2429-5396 | [www.american-jiras.com](http://www.american-jiras.com), April 2020 .

Link: [https://american-jiras.com/Abstract\\_3\\_April\\_2020.html](https://american-jiras.com/Abstract_3_April_2020.html)

#### **Journal 2:**

Authors : **Bouafia Khawla** and Molnár Bálint

Title: Formal Verification of Analysis Approach for Enterprise Information Systems Architecture Using Hypergraph Representation Based on Finite State Machines for Supporting Business Process Requirements.

Journal: Journal of Applied Business and Economics (JABE), Vol.22(9), 03-01-2021.

Link: <https://articlegateway.com/index.php/JABE/article/view/3686>

#### **Journal 3:**

Authors: **Bouafia Khawla** and Molnár Bálint

Title: Hypergraph Application on Business Process Performance

Journal: Information 2021, 12(9), 370; <https://doi.org/10.3390/info12090370>

Link: <https://www.mdpi.com/2078-2489/12/9/370>

#### **Journal 4:**

Authors: **Bouafia Khawla** and Molnár Bálint

Title: New Application of Models and Hypergraph on Dynamic Aspect of Business Process Performance Analysis

Journal: Information 2023, special issue of Annales Computatorica dedicated to the MaCS

Link: accepted and , under publication

## **Chapter**

Authors: Jozef Stašák, Jaroslav Kultán, Peter Schmidt and **Bouafia Khawla**.

Title: Business Process Linguistic Modelling –Theory and Practice - Part II: BPLM Business Process Designer Process Requirements.

Book: Open Access book, "Operations Management - Emerging Trend in the Digital Era" edited by Dr. Antonella Petrillo

## **Participation in winter schools**

1- Winter school: 4th Winter School of Ph.D. Students in Informatics and Mathematics 24th-26th February 2017 Pecs, Hungary

2- Winter school: Bigdat2018 (4th International Winter School on Big Data, Timișoara, Romania, January 22-26, 2018 in Romania

3- Winter school: 5th Winter School of Ph.D. Students in Informatics and Mathematics 2nd-4th March 2018 Debrecen, Hungary

4- Winter school: Bigdat2019 (5th International Winter School on Big Data, University of Cambridge, UK, January 7-11, 2019)

## **Digital Skills**

- Development of websites and applications using different programming languages.
- Maintenance of the computer.
- Very good knowledge of computer skills.
- Very good knowledge of various programming languages like Java( certificate in Java Programming )
- Good command of Microsoft office.
- Efficient use of text editor: Latex, Word, and good manipulation databases.
- Manipulation, Photos-software.
- Hardware and software Basic troubleshooting