Brahim Benaissa

Ph.D. in computational mechanics and AI enthusiast

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Scholar. Researchgate

EXPERIENCE

Toyota technological Institute, Japan — *postdoctoral fellow*

June 2021

Design engineering Lab, Mechanical Systems Engineering.

Eyenbros.com, USA — *Founder CEO*

JUN 2019 - JAN 2021

IT company with a web platform product for community interaction and project collaboration.

Kyushu Institute of Technology, Japan — *researcher*

Feb 2017 - JUL 2020

Kansei engineering Lab, Department of Human Intelligence Systems.

INSA centre val de loire Blois, France— researcher

SEP 2014 - DEC 2014

The Laboratory of material science and Rheology.

EDUCATION

Kyushu Institute of Technology, Japan— *Postdoctoral*

Feb 2017 - JUL 2020

Artificial intelligence for activity recognition and indoor localization.

Boumerdes University, Algeria— *Ph.D.*

Feb 2012 - JUL 2016

Bio-inspired optimization algorithms and model order reduction for crack identification.

PROJECTS

Ambient Human Sensing — *Japanese national research project.*

Supporting the care industry of the next 20 years with artificial intelligence. I created body tracking algorithms based on sensors and BLE beacons. Resulted in multiple research papers, 4 patents and an android smartphone app.

EXPERTISE

Computer aided design.
Computer simulation.
Optimization.
Machine learning.
Web and App Product development.
Smart systems design.
Writing.

AWARDS

Research award at kyushu institute of technology: 3 years contract for developing activity recognition solutions.

Research award at University of Boumerdes: funding for crack identification method

Top student award at Medea University: Both, Masters and Bachelor top student of the department of engineering.

LANGUAGES

Fluent: English, French, Arabic, Matlab, Python.

Basic: Japanese, Javascript, HTML, CSS.

PEER REVIEWED PAPERS

Under review	F Althobiani, S Khatir, B Brahim, E Ghandourah, M Abdel Wahab, S Mirjalili. Crack identification using Improved Grey Wolf optimization and Machine Learning. Theoretical and applied fracture mechanics
Under review	**B Benaissa**. S. Khatir, S. Mirjalili, M. Köppen. YUKI algorithm: A new optimization method based on dynamic search space reduction, Applied intelligence.
Accepted	**B Benaissa,** N. AïtHocine, S. Khatir, M. K. Riahi, S. Mirjalili**.** YUKI algorithm and POD-RBF for Elastostatic and dynamic crack identification. Theoretical and applied fracture mechanics.
2020	S.S. Alia, P. Lago, S. Takeda, K. Adachi, **B Benaissa**. M. A. R. Ahad, S. Inoue. Summary of the Cooking Activity Recognition Challenge. Human Activity Recognition Challenge Springer book.
2019	**B. Benaissa**, K. Yoshida, M. Köppen, F. Hendrichovsky. Updatable indoor localization based on BLE signal fingerprint. International Conference on Applied Smart Systems ieeexplore.
2018	W. A. Syafruddin, M. Köppen, **B. Benaissa**. Does the Jaya Algorithm Really Need No Parameters? International Joint Conference on Computational Intelligence
2018	S. Khatir, M. A. Wahab, **B. Benaissa**, & M. Köppen. Crack identification using eXtended IsoGeometric analysis and particle swarm optimization. In Fracture, fatigue and wear (pp. 210-222). Springer, Singapore.
2018	**B. Benaissa**, F. Hendrichovsky, K. Yoshida, M. Köppen. P. Sincak. Phone Application for Indoor Localization Based on BLE Signal Fingerprint. New Technologies, Mobility and Security IEEE.
2018	S. W. Ariela, M. Köppen, and **B. Benaiss**a. "Does the Jaya Algorithm Really Need No Parameters?." IJCCI. 2018.
2018	**B. Benaissa**, M. Köppen, & K. Yoshida. Activity and Emotion Recognition for Elderly Health Monitoring. International Journal of Affective Engineering.
2017	S. Khatir, **B. Benaissa**, R. Capozucca, & M. A. Wahab. Damage detection in CFRP composite beams based on vibration analysis using proper orthogonal decomposition method with radial basis function and Cuckoo Search algorithm. Composite Structures.
2017	**B. Benaissa**, M. Köppen, M. A Wahab, & S. Khatir. Application of proper orthogonal decomposition and radial basis functions for crack size estimation using particle swarm optimization. In Journal of Physics: Conference Series.
2016	**B. Benaissa**, N. AïtHocine, I. Belaidi, A. Hamrani, V. Pettarin. Crack identification using model reduction based on proper orthogonal decomposition coupled with radial basis functions. Structural and Multidisciplinary Optimization.
2015	S. Khatir, I.Belaidi, R. Serra, **B. Benaissa**, A. Saada. Genetic Algorithm Based Objective Functions Comparative Study for Damage Detection and Localization in Beam Structures. Journal of Physics: Conference Series.
2014	**B. Benaissa**, I.Belaidi, A.Hamrani. Identifying defect size in two-dimensional plates based on boundary measurements using reduced model and genetic algorithms. Revue de sciences et technologie A.

PATENTS

Japan 2020	Accepted	BLE Router-based indoor localization approach, with signal mapping.
Japan 2020	Accepted	Spatial correction in Virtual Reality headsets.
Japan 2020	2020085715	Dynamic graphic-based area labeling for indoor localization.
Japan 2019	2019144120	Phone application to estimate the indoor position of the user based on iBeacon signal mapping