



باسم شاهين بجاي

دكتوراه في الهندسة الميكانيكية عمليات تصنيع 2017 - المانيا.

ماجستير في الهندسة الميكانيكية عمليات تصنيع 2000 - العراق.

قسم الهندسة الميكانيكية كلية الهندسة جامعة بغداد

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• الدرجة العلمية: استاذ مساعد

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• الاتجاهات البحثية:

- Artificial Intelligence.
- Advance Simulation and Modeling.
- Manufacturing Systems and Technology.
- Additive Manufacturing.
- Printed Circuit Boards.
- Laser Processing.
- Laser Applications in the Manufacturing Process.
- Surface Engineering.
- Materials Engineering and Processing.



• الابحاث المنشورة :

1. Bachy B, Al-Dunainawi Y. Influence of the effective parameters on the quality of laser micro-cutting process: Experimental analysis, modeling and optimization. Journal of Laser Applications. 2020 Feb 17;32(1):012002.
2. Bachy B, Süß-Wolf R, Franke J. On the quality and the accuracy of the laser direct structuring, experimental investigation and optimization. Journal of Laser Applications. 2018 May 12;30(2):022006.
3. Bachy B, Süß-Wolf R, Wang L, Fu Z, Travitzky N, Greil P, Franke J. Novel Ceramic-Based Material for the Applications of Molded Interconnect Devices (3D-MID) Based on Laser Direct Structuring. Advanced Engineering Materials. 2018 Jul;20(7):1700824.
4. Bachy B. Experimental Investigation, Modeling, Simulation and Optimization of Molded Interconnect Devices (MID) Based on Laser Direct Structuring (LDS).
5. Bachy, Bassim, Robert Süß-Wolf, Timo Kordass, and Joerg Franke "Simulation and experimental investigation for the 2D and 3D laser direct structuring process." The International Journal of Advanced Manufacturing Technology, 1-12, (2016).
6. Bassim, Bachy, and Jörg Franke "Experimental Investigation and Optimization for the Effective Parameters in the Laser Direct Structuring Process." Journal of Laser Micro/Nanoengineering, vol. 10, No. 2, pp.202-209, (2015).
7. Bassim, Bachy, and Jörg Franke "Modeling and optimization of laser direct structuring process using artificial neural network and response surface methodology". International Journal of Industrial Engineering Computations, vol. 6, pp. 553-564, (2015).
8. Bassim, Bachy, and Joerg Franke "Simulation of laser structuring by three dimensional heat transfer model." Microsystems, Packaging, Assembly and Circuits Technology Conference (IMPACT), 9th International, pp. 437-444, (2014).
9. Timo Kordass, Bassim Bachy, Mathias Weisser, Jörg Franke “ Laser-assisted selective activation of injection molded chip packaging devices with thermoset



- substrate materials for intelligent connectivity systems in automobiles” The 50th CIRP Conference on Manufacturing Systems. 2017.
- 10.Esfandyari, Alireza, Bassim Bachy, Stefan Raithel, Aarief Syed-Khaja, and Joerg Franke. "Simulation, Optimization and Experimental Verification of the Over-Pressure Reflow Soldering Process." Procedia CIRP 62 (2017): 565-570.
 - 11.Bassim Sh. Bachy, "Simulation of Quenching Process by Numerical Heat Transfer Model" The Iraqi journal for Mechanical and Materials Engineering, No.3; vol.10; 2010,pp. 377-390.
 - 12.Bassim Sh. Bachy "Mathematical Model to Investigate the Temperature and Hardness Distribution During The Annealing And Normalizing Treatment", Journal of Engineering, Baghdad University, (2010).
 - 13.Qasim M. Daws, Bassim Sh. Bachy, " Simulation of Continues Casting Process by Three Dimensional Computational Model", Proceedings of the second Al-kofa International Conference for Mechanical Engineering and material engineering, 2002.
 - 14.Qasim M. Daws, Bassim Sh. Bachy, "Simulation of Continues Casting Process by Mathematical Model", , Proceedings of the first Al-kofa International Conference for Mechanical Engineering and material engineering,2000.

• الإشراف على رسائل الماجستير:

Mathematical Modeling Based on Response-Surface Methodology (RSM), Experimental Investigation and Optimization for the Laser Cutting Process.

• براءات الاختراع والجوائز المسجلة:

- Method for producing a circuit carrier: Inventor Bassim Bachy, Jörg Franke, Zongwen Fu, Peter Greil, Robert Süss-Wolf, Nahum Travitzky, Wang Li,: Current Assignee, Friedrich Alexander Univeritaet Erlangen Nuernberg (FAU) : **DE102017209993A1**, Germany, **2018-12-13**.



- Method for producing a circuit carrier: Inventor Bassim Bachy, Jörg Franke, Zongwen Fu, Peter Greil, Robert Süss-Wolf, Nahum Travitzky, Wang Li,: Current Assignee, Friedrich Alexander Univeritaet Erlangen Nuernberg (FAU): **WO2018/229138, 09 April 2021.**
- **Award:** Outstanding Paper Award of the : Laser-assisted Selective Activation of Injection Molded Chip Packaging Devices with Thermoset Substrate Materials for Intelligent Connectivity Systems in Automobiles: in the 50th CIRP Conference on Manufacturing System, 2017.

● كتب الشكر والتقدير:

- وزير: 5 كتب شكر
- رئيس الجامعة: 12 كتاب شكر
- عميد الكلية: 8 كتب شكر