

# Mohamed Essid

*Professor of Mechanical, Industrial & Manufacturing Engineering— Higher Institute of Technological Studies of Sfax – Tunisia (ISET Sfax)*

## A. Personal Details



Date of Birth: January<sup>13</sup> 1979

Marital Status: Married

Nationality: Tunisian

Languages: ar , en , Fr

Contact:

Address: BP88A-SFAX-3099-TUNISIA

## B. Academic Qualifications

Ph.D.: National Engineering School of Sfax-Tunisia, 2020 — Thesis Title / Optimization of the CNC unit parameters in high-speed milling of freeform surfaces

M.Sc.: Higher School of Science and Technology of Tunis-Tunisia, 2012 — Subject of the research master's degree: behavior of welded aluminum thin sheet by FSW

B.Sc.: National Engineering School of Tunis-Tunisia, 2003

## C. Employment History

[01-2021] – [Present]: [assistant professor] — [ISET SFAX] — [Tunisia]

[09-2005] – [12-2020]: [Associate Professor] — [ISET KEF] — [Tunisia]

## D. Research Interests

- Item 1 : High-speed CNC machining, Robotic
- Item 2: Vibration monitoring, Infrared thermography, Non-destructive testing tools, Maintenance management

## E. Selected Publications

1. Essid M, Gassara B, Baili M, Hbaieb M, Dessein G, Bouzid Saï W (2019a) Analytical Modeling of the Tool Trajectory with Local Smoothing. Advances in Mechanical Engineering

and Mechanics: Selected Papers From the 4th Tunisian Congress on Mechanics, CoTuMe 2018, Hammamet, Tunisia, October 13–15, 2018 24–31 . doi: [https://doi.org/10.1007/978-3-030-19781-0\\_3/4](https://doi.org/10.1007/978-3-030-19781-0_3/4)

2. Essid M, Gassara B, Baili M, Hbaieb M, Dessein G, Bouzid Saï W (2019b) Analytical modeling of the CNC machine axis motion in high-speed milling with local smoothing. Int J Adv Manuf Technol. doi: 10.1007/s00170-019-04157-4

3. Essid M, Gassara B, Baili M, Hbaieb M, Dessein G, Bouzid Saï W (2019c). Effect of the programmed tolerance on the smoothing block geometry in HSM : International Conference on Innovative Materials, Manufacturing, And Advanced Technologies : IMMAT'2019.

4. Essid, M. et al. (2023). Effect of the Interpolation Mode on the Tool Path Accuracy in HSM. In: Sai, L., Sghaier, R.B., Abdelkader, K., Saï, K., Bouzid Saï, W., Laribi, M.A. (eds) Proceedings of the 2<sup>nd</sup> International Conference on Innovative Materials, Manufacturing, and Advanced Technologies. IMMAT 2022. Mechanisms and Machine Science, vol 144. Springer, Cham. [https://doi.org/10.1007/978-3-031-42659-9\\_28](https://doi.org/10.1007/978-3-031-42659-9_28)

5. Bouzaïene.H, Meslameni.W, Essid, M. ( 2023). An Investigation into Effect of Canned Cycles on High-Speed Drilling Hole Quality, 10th International Congress on Design and Modelling of Mechanical Systems: COTUME 2023.

6. Sbaa.R, Tarchoun.R, Ben Ahmed.M, Essid.M, Bouzid Saï.W. ( 2023). Effect of the programmed smoothing parameters on the kinematic behavior of the NC machine in HSM, 10th International Congress on Design and Modelling of Mechanical Systems: CMSM 2023. LNME, pp. 1–9, 2024. [https://doi.org/10.1007/978-3-031-65007-9\\_40](https://doi.org/10.1007/978-3-031-65007-9_40).

## F. Teaching and Supervision

Undergraduate courses taught: CNC Machining, High-speed CNC Machining, Computer-Aided Design and Manufacturing, Robotic, Additive manufacturing, Work safety and ergonomics, maintenance methods and management, Vibration monitoring and analysis, Non-destructive testing, Welding,

Postgraduate supervision:

### 1. PHD Thesis Title

- a. *Improvement of the Surface Quality of Freeform Geometries Obtained by HSM Through Kinematic Correction of Machining Parameters*
- b. Effect of Machine Kinematics on the Surface Topography Obtained by High-Speed Turning

### 2. Master's Theses

- a. Study of sheet behavior in deep drawing (October 2015).
- b. Influence of machining parameters on the surface condition of press tooling (October 2017).

- c. Improvement of the process for producing mechanical parts by electrical discharge machining (EDM) through tool geometry correction, applied to complex shapes (November 2021).
- d. Design of an induction heating system (October 2021).
- e. Maintenance and commissioning of an extrusion machine (October 2021).
- f. Study of the effect of smoothing modes on the tool/workpiece path (November 2021).
- g. Simulation of the effect of motion dynamics on motion accuracy in high-speed milling (November 2023).

## **G. Awards, Grants and Memberships**

- International certification

January 9, 2021: Computer-Aided Design - from DASSAULT SYSTEMES

- 2022/2023: Erasmus+ Mobility Programme

Role: Supervisor

- 2024/2025: Erasmus+ Capacity Building Programme (HINTS - 101129017)

Role: Coordinator and Trainer

- 2024/2025: Erasmus+ Capacity Building Programme (PULSE - 101183372)

Role: Coordinator

- 2025/2026; Erasmus+ Programme: Capacity Building (CobotsVETMed-101242670).

Role: Coordinator and Trainer

- 2025/2026; Erasmus+ Programme: Capacity Building (OPEN-Fashion-101242586).

Role: Coordinator

## **I. References**

Gilles DESSEIN ( Full Professor) , gilles.dessein@safrangroup.com

Ridha Enetta ( Full Professor) , ridha.ennetta@issig.rnu.tn

Template notes: Use Times New Roman, 11 pt. Headings 12 pt bold blue. Candidate name: 20 pt bold. Max length: 2–4 pages.