

## **PROF. ING. ALESSANDRO FORTUNATO**

Associate Professor  
School of Engineering and Architecture  
Alma Mater Studiorum Università di Bologna  
May 2019

**Address:** Dipartimento di Ingegneria Industriale, Scuola di Ingegneria e Architettura. Viale del Risorgimento 2 - 40136 - Bologna (BO). Telephone: +390512093456; Fax: +390512093456; **Email:** [alessandro.fortunato@unibo.it](mailto:alessandro.fortunato@unibo.it);  
**Web:** <http://gruppolaser.ing.unibo.it>;

### **Education:**

2009: 3 months "visiting research" Purdue University: "*Fabrication of waveguides and microfluidic channels in fused silica by a femtosecond laser*". Advisor: Prof. Yung C. Shin.  
2008 3 months "visiting research" Osaka University: Metal-Plastic Direct Hybrid welding  
Advisor: Prof. S. Katayama  
2005 PhD in Mechanics of Materials and Manufacturing Technology, University of Bologna  
2000 M.S. in Mechanical Engineering, University of Bologna.

### **Professional experiences:**

sett. 2017-presente: Associate Professor Dipartimento Ingegneria Industriale (DIN)  
University of Bologna  
2015-presente: Member NEXTEMA spinoff of the University of Bologna  
2014-presente: Coordinator of Gruppo Laser, University of Bologna

*Interantional collaboration:* Cech Science Academy "Hilase" Project.

*Conference Organizer:* 1° Congresso "Italian Digital Biomanufacturing Network". Istituto Ortopedico Rizzoli, Bologna. 2017.

*Symposium Organizer:* Advances in Additive Manufacturing Process Design & Part Performance ASME – MSEC 2018  
Membro Comitato Scientifico dell'International Conference on New Forming Technology ICNFT 2018.  
Additive Manufacturing Process Improvements for Part Functionality, ASME – MSEC 2017  
Substitution and enhancement of traditional manufacturing processes with laser techniques: technical and economic feasibility, ASME - MSEC 2015  
Thermally-Assisted Manufacturing, ASME - MSEC 2013;  
High Power Density Surface Treatments, ASME - MSEC 2009;

*Conference Session Chair:* Substitution and enhancement of traditional manufacturing processes with laser techniques: technical and economic feasibility, ASME - MSEC 2015, Charlotte, USA.  
Applicazioni Industriali Tecnologie Laser, 2014, Bologna, Italy.  
Thermally-Assisted Manufacturing, ASME - MSEC 2013, Madison, USA;  
14th International CIRP Design Seminar, 2004, Cairo, Egypt;

*Journal Editor:* Associated Editor of “Laser in Manufacturing and Material Processing”, Springer Ed.; Associated Editor of “Lamiera, Tecniche Nuove”;  
Associated Guest Editor of the Special Issue "Thermally-assisted Manufacturing" of “ASME Journal of Manufacturing Science and Engineering”;  
Associated Editor of “Applicazione Laser”, PubliTec.

*Journal Reviewer:* Journal of Material Processing and Technology  
Surface and Coatings Technology  
International Journal of Thermal Sciences Heat Transfer Engineering  
Meccanica  
Journal of Manufacturing Science and Engineering  
Optics and Lasers in Engineering  
International Journal of Machine Tool and Manufacturing  
Acta Biomaterialia  
Journal of Process Mechanical Engineering  
Applied Surface Science  
Laser in Manufacturing and Material Processing

*Professional Societies:* Corporate member CIRP

### **Research topics**

Laser material processing  
Laser fabrication via Additive Manufacturing (AM)  
Ultra-short laser-material interactions  
Lasers in biological applications  
Machine tools and machine tool dynamics

**SCOPUS:** 84 papers, h-index:15, citation: 800

### **National and International Research projects:**

- 2019-today: Progetto FATECO finanziato nell’ambito di “Horizon 2020 - Research and Innovation Framework Programme”, action: RFCS-RPJ. **Ruolo: Responsabile scientifico Università di Bologna**
- 2016-2018: 2016 - Italy-Israel R&D Cooperation Program. Progetto Multidie contributo concesso dal Ministero degli Affari Esteri e della Cooperazione Internazionale per il progetto di cooperazione industriale tra Italia ed Israele. **Ruolo: Membro del gruppo di lavoro.**
- 2015-2018: ECOPACKLAB. “Laboratorio infrastrutturale per l’applicazione di tecnologie avanzate per realizzare packaging attivo e sostenibile. Programma POR-FESR 2014-2020. **Ruolo : Membro del gruppo di lavoro.**
- 2015-2017: MISE Sacim n.261 “Nuove tecnologie di processo e di prodotto ecocompatibili, intelligenti ed integrate per formatura di contenitori mobili polifunzionali in accordo con i criteri di mobilità sostenibile e sicurezza. **Ruolo : Membro del gruppo di lavoro.**”
- 2014-2017: CLUSTER - High Performance Manufacturing. **Ruolo: Coordinatore del Programma.** “Reconfigurable Machine for High Manufacturing”
- 2013-2016: THERMACO – Smart Thermal conductive Al MMCs by casting. Progetto finanziato nell’ambito della priorità NMP del VII PQ partecipato dall’Università di Bologna e da Automobili Lamborghini SPA. **Ruolo: Coordinatore del Programma.**
- 2011-2014: INDUSTRIA 2015 - New Technologies for Made-in-Italy goods. **Coordinatore Nazionale** della Linea di Ricerca 4 "Servo motori elettrici ad alte prestazioni". **Responsabile Dimostratore** Linea 2: "Laser servo-assisted sheet- metal forming press" per l’Università di Bologna
- 2007-2010: MIUR-FAR: Hi-Mech – DM28594. New technologies in High Speed Machining **Ruolo: Coordinatore del Programma:**
- 2005-2008: PRIN 2008: INTEMA INnovative TEchnologies for industrial Metal foam Applications. **Ruolo: Coordinatore del Programma:**

### **Awards:**

2016: Best paper at 18th CIRP Conference on Electro Physical and Chemical Machining, ISEM 2016 per l’articolo: “Quality and Productivity Considerations for Laser Cutting of LiFePO<sub>4</sub> and LiNiMnCoO<sub>2</sub> Battery Electrodes”.