

## ANÚNCIO PARA ATRIBUIÇÃO DE BOLSA DE INVESTIGAÇÃO

SMARTCUT\_MSc\_2018/02

### RESEARCH GRANT

It is open a call for one master grant (**Reference SMARTCUT\_MSc\_2018/02**) under the research project **POCI-01-0145-FEDER-030353**, called "Smart designed cutting tools by Multi-material Selective Laser Melting/Sintering", funded by the Fundo Europeu de Desenvolvimento Regional (FEDER) through the COMPETE2020 – Programa Operacional Competitividade e Internacionalização (POCI) and by national funding through Fundação para a Ciência e a Tecnologia I.P., under the following conditions:

#### 1. SCIENTIFIC AREA

Mechanical Engineering and Engineering Systems: Mechanical Technology

#### 2. ACADEMIC BACKGROUND/PROFILE OF THE CANDIDATE

Master in Mechanical Engineering, Master in Materials Engineering or related fields. Other requirements: experience in scientific research relevant for the project and candidate motivation. The following aspects are valued: (i) research experience in machining processes; (ii) research experience in cutting tools performance (iii) experience in processing material selection (iv) written expression in reference languages and in particular in English, (v) the candidate's merits, considering the parameters of academic and curricular profile.

#### 3. FELLOWSHIP TERM

Duration of 12 months, starting on december 2018, eventually renewable till the end of the project (the project extent is 36 months), in exclusiveness regime, according to the regulation of research fellowships enforced by the Fundação para a Ciência e Tecnologia, I.P.

#### 4. ACTIVITY/WORK PLAN

The work will be developed in Mechanical Technology Laboratory phases: (i) Design of the smart cutting tool; (ii) Materials selection for the selected functions; (iii) Components characterization regarding geometrical and dimensional accuracy, porosity, mechanical and metallurgical properties; (iv) In-service testing of the cutting tool. It is intended that the candidate fulfils the work plan and write and publish one article in an ISI indexed journal per year of contract.

#### 5. LEGISLATION AND LEGAL STATUS

Law nº 40/2004, of August 18, amended and republished by Decree-Law nº 202/2012, of August 27, by Law nº 12/2013, of January 29 and by Decree-Law nº 89/2013, of July 9; Regulation nº 73/2015, of February 16 (published in DR no. 32, Series II, 2015-02-16) - Regulamento de Bolsas de Formação Avançada do ISEP; Regulamento de Bolsas de Investigação da FCT, I.P., approved by Regulation no. 234/2012, of June 25, amended by Regulation no. 326/2013, of August 27.

#### 6. SCIENTIFIC SUPERVISION/LOCAL OF ACTIVITY

The work will be developed at the CIDEM – Centre for Research & Development in Mechanical Engineering, located in ISEP installations, under the scientific guidance of Doctor Olga Paiva and Doctor Hernâni Lopes.

#### 7. PAYMENT

Monthly value of the research grant: 980 €, paid by bank transfer (according to the FCT values table: <http://www.fct.pt/apoios/bolsas/valores.phtml.pt>), supported through the **PAD nº C40216**.

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### 8. SELECTION METHODS AND JURI PANEL

The evaluation criterion is based on candidates CV (60%), considering their education, experience in scientific research relevant to the project and its motivation, and interview (40%). The following aspects are valued: (i) research experience in machining (ii) research experience in material processing (iii) experience in data analysis (iv) written expression in English, (v) the candidate's merits, considering the parameters of academic and curricular profile. English knowledge is also valued.

The jury is composed by the President (Doctor Olga Paiva) and two effective members (Doctor Hernâni Lopes and Doctor Manuel Castro) and by a substitute member (Doctor Francisco Silva).

### 9. PUBLICATION/NOTIFICATION OF RESULTS

The final evaluation results will be publicized within 5 working days after the application deadline, via an ordered list by final grade obtained, affixed at the Department of Mechanical Engineering. All candidates, including the selected candidate, will be notified by email with delivery receipt.

### 10. APPLICATION DOCUMENTS

Applications must include the following documentation: (i) detailed *Currirulum Vitae* of the candidate, (ii) other elements relevant to the assessment of merit, in particular teacher references or recommendations, (iii) letter of motivation, written in English, for the performance of the purpose of the research grant.

### 11. PERIOD/WAY OF APPLICATION

All applications must be submitted between 12/11/2018 and 23/11/2018. Applications must be formalized, necessarily, by sending a motivation letter, accompanied by the following documents: Curriculum Vitae, certificates, and other documents considered relevant. Applications must be sent to the following e-mails: [omp@isep.ipp.pt](mailto:omp@isep.ipp.pt) and [hml@isep.ipp.pt](mailto:hml@isep.ipp.pt).

### 12. SELECTION RESERVE

The ISEP reserves the right to resort to non-selected candidates, by the order of seriation, to hire a fellow in the ambit of the same project, due to the withdrawal of the initially selected candidate.