

Job/Fellowship Reference: C2008-IST/IDEMC.5

Main research field: Engineering

Sub research field: Mechanical Engineering

Job summary:

IDMEC/IST-5: Microfluidics and Associated Extracorporeal Medical Devices and Mass Transfer

Miniaturized diagnostic devices, like lab-on-a-disk/lab-on-a-chip, are being intensively developed for use by medical doctors. Other miniatures, like membrane laboratory models and extracorporeal biomedical equipments, are being improved to be applied to biomedical industry and water recovery processes. Deeper understanding of physical fluid/solid/gas phenomena, like capillarity, and new modeling are needed. Mass transfer mechanisms influenced by such phenomena also require further research work. This requires a systematic and fundamental research work on steady/unsteady flows and mass transfer in microelements (channels, valves, detection areas, mixing chambers, etc.) with recourse to available microflow-visualization, micro-PIV equipments, CFD and interferometry holographic system. The final selection of candidates for the open positions will be subject to a decision from FCT.

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Vacant posts: 1

Type of contract: Contrato a termo certo

Job country: Portugal

Job city: Lisboa

Job company/institute: Instituto Superior Tecnico

Application deadline: 17 Setembro 2008

(The Application's deadline must be confirmed on the Job Description)

2. Dados de contactos da organização

2. Organization contact data

Organization/institute: Instituto Superior Técnico-Instituto de Engenharia Mecânica

Address:

Av. Rovisco Pais, 1

Lisboa - 1049-001

Portugal

Email: carlosmotasoares@dem.ist.utl.pt

Website: <http://www.idmec.ist.utl.pt/>

3. Habilitações académicas

3. Required education Level

Degree: PhD - in related areas of the application field with scientific publications and previous research experience are required in the application field

Degree field: Engineering

4. Línguas exigidas

4. Required languages

Language: English

Priority: Normal

Reading: Good

Writing: Good

Comprehension: Good

Conversation: Good

5. Experiência exigida em investigação

5. Required research experience

Main Research Field: Engineering

Research Sub-Field: Mechanical engineering

Years of Research Experience: 3 years

6. Juri

6. Selection Committee

Name: [Carlos A. Mota Soares](#)

Name: [Luís Braga Campos](#)

Name: [John T. McMullan](#)

Name: [Tony Atkins](#)

Name: [J. N. Ready](#)