

# VON KARMAN INSTITUTE FOR FLUID DYNAMICS INPA

# INSTITUT von KARMAN DE DYNAMIQUE DES FLUIDES AISBL VON KARMAN INSTITUUT VOOR STROMINGSDYNAMICA IVZW

AGT 0000/JM/CDT March 2013

Dear Madam, dear Sir,

I would like to bring to your attention the enclosed poster for application to the Research Master in Fluid Dynamics (master after master level) of the von Karman Institute. The program gives access to an extraordinary set of wind tunnels covering all regimes, from low subsonic to hypersonic flow.

The Research Master is a one-year postgraduate program with a 55-years tradition, emphasizing the development of a critical research ability, project leadership skills, and intercultural understanding. Approximately thirty-five young engineers and scientists from ten or more countries attend this program, taking place in a unique international, highly valuated team spirit. They are offered a wide selection of specialized courses on various aspects of fluid dynamics in different fields such as aeronautics, aerospace, turbomachinery, propulsion, green environment, green energy production and industrial processes. Strong emphasis is given to the personal research project closely linked to real life industrial problems and carried out under guidance by members of the faculty. The VKI Research Master in Fluid Dynamics complements the master programs of universities with a profound research oriented specialization.

Please bring these opportunities to the attention of students or young researchers who have an aptitude for advanced study and an interest in an international study experience. Applications received prior to 30 April 2014 will be given preference. The Research Master starts on 28th September 2014.

Fellowships for the program are available and there is no tuition fee for many NATO countries.

We kindly ask you to inform your students or young researchers about these opportunities and to make the posters included available to potential candidates by displaying it in a prominent location.

For further information or details, we invite you to visit our website www.vki.ac.be. Requests for applications or further information from you or your students will receive a prompt reply.

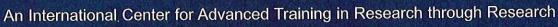
Yours sincerely,

H.DECOMMCK Dean of Faculty

Director

Encl.: poster

# VON KARMAN INSTITUTE FOR FLUID DYNAMICS



Founded by Theodore von Karman in 1956 Located near Brussels, capital of Europe



# CALL FOR APPLICATIONS

# SHORT TRAINING PROGRAMME FOR UNDERGRADUATE STUDENTS

The von Karman Institute for Fluid Dynamics (VKI) offers a hands-on training for a period of three up to six months to university students in engineering, physics or mathematics, involving active participation in a guided research project.

This experience will provide practice in the use of top-level experimental test facilities, computational and laboratory techniques. Added benefits are the exposure to methodology of research and team work in an international, multicultural environment.

In many cases, this programme can also be used to prepare a MS graduation thesis at the home university.



# http://www.vki.ac.be

Subjects for research projects include:

## Environmental and applied fluid dynamics

Fluid mechanics and heat transfer in industrial processes

- wind effects on buildings
- vehicles aerodynamics
- wind energy
- heat transfer and two-phase flows

Fluid mechanics in industrial processes

Non-intrusive instrumentation

**Biological flows** 

### Aeronautics and aerospace

Aeronautical flows

- from low speed to hypersonic aerodynamics

Aeroacoustics

Space applications

- atmospheric entry aerothermodynamics
- plasma flows

Computational methods for flow simulation (CFD and uncertainty quantification)

Small satellites development

# Turbomachinery and propulsion

Axial and radial compressors, gas and steam turbines

- aerodynamic design, optimisation and analysis
- unsteady flows and blade row interactions
- heat transfer and cooling
- fast-response instrumentation

Training period: 3 up to 6 months to start anytime except in September. A working knowledge of English or French is required. More information about fellowships is available on our website:

http://www.vki.ac.be

Application forms can be downloaded from the website in the educational section.

Further information may be obtained by writing to:
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