



# IAEA

International Atomic Energy Agency

Vienna International Centre, PO Box 100,  
1400 Vienna, Austria  
Phone: (+43 1) 2600 - Fax: (+43 1) 26007,  
Email: [Official.Mail@iaea.org](mailto:Official.Mail@iaea.org)

## PROGRAMME OF COORDINATED RESEARCH ACTIVITIES

Webpage: [cra.iaea.org](http://cra.iaea.org)

### REQUEST FOR RENEWAL OF RESEARCH CONTRACT No.

**PLEASE SEND YOUR REQUEST FOR RENEWAL OF RESEARCH CONTRACT TO [Official.Mail@iaea.org](mailto:Official.Mail@iaea.org) ONLY DULY FILLED AND SIGNED RENEWAL REQUESTS WILL BE PROCESSED.**

<b>1. CODE OF THE COORDINATED RESEARCH PROJECT (CRP):</b> 17116/R0	
<b>2. TITLE OF THE COORDINATED RESEARCH PROJECT (CRP):</b> Utilisation of a Network of Small Magnetic Confinement Fusion Devices for Mainstream Fusion Research. IAEA CRP F1.30.14.	
<b>3. TITLE OF RESEARCH CONTRACT:</b> Probe diagnostics and education activities at the tokamak GOLEM	
<b>4. CONTRACTING INSTITUTION:</b> <b>(The contracting institution can only be an institution with independent legal personality)</b>  Inst. Name: <b>The Czech Technical University, FJFI CVUT Prague</b>  Street: Brehova 7 P.O. Box: Postal Code: 11519 City : Prague Region/District : Country: Czech Republic Tel.: +420 224351111 Fax: +420 222320861 Email: <a href="mailto:dekan@fjfi.cvut.cz">dekan@fjfi.cvut.cz</a> Does the institution have an independent legal personality <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>5. IMPLEMENTING INSTITUTION:</b> <b>(Where the research is performed - contracting institution, sub-institution, branch of the main institution or laboratory)</b>  Inst. Name: <b>Tokamak GOLEM</b>  Street: Brehova 7 P.O. Box: Postal Code: 11519 City : Prague Region/District : Country: Czech Republic Tel.: +420 224358361 Fax: +420 222320861 Email: <a href="mailto:svoboda@fjfi.cvut.cz">svoboda@fjfi.cvut.cz</a>
<b>6. DETAILED WORK PLAN FOR COMING YEAR (including proposed methods or techniques):</b>  Since the tokamak GOLEM have experienced long-term technological difficulties with the vessel leakage, which slowed down noticeably planned scientific programs and it is now a bit difficult to foresee future scientific exploitation, we propose to change the main topic to the plasma edge physics: i) Measurements on the radial profiles of plasma parameters with the linear array of probes (the rake probe). Thanks to unique reproducibility of the GOLEM discharges, the IV characteristics can be measured by changing the probe voltage on a shot-to shot basis. Consequently, the temporal resolution about 10 us can be achieved. Measurements are to be performed during a tokamak discharge, as well as during the pre-ionization phase of a discharge. ii) Training of students via participation in operations of the GOLEM tokamak and other education activities. The work on fusion-oriented experiments requires a sufficient amount of expertise. Small tokamaks are the most suitable devices for practical training of young scientists, who just start their carrier in fusion-oriented research, because they offer more opportunities to be acquainted with all aspects of the experimental work than possible on large and quite complex machines.	

**7. PROJECT PERSONNEL (if space provided below is insufficient, please attach additional sheets)**

**A. Chief Scientific Investigator (CSI)**

Family Name :	First Name:	Gender: M/F	Date of birth: yyyy-mm-dd	Nationality:
Svoboda	Vojtech	M	1967-03-11	czech

Telephone (office):	Fax (office):	Email (office):	Position held:
+420 224358361	+420 222320861	svoboda@fjfi.cvut.cz	Assistant Professor

**B. Secondary CSI (if applicable)**

Family Name :	First Name:	Gender: M/F	Date of birth: yyyy-mm-dd	Nationality:
Stockel	Jan	M	1944-07-01	czech

Telephone (office):	Fax (office):	Email (office):	Position held:
+420 266053940	+420 286586389	stockel@ipp.cas.cz	

**C. Main additional Scientific Staff**

Family Name :	First Name:	Gender: M/F	Date of birth: yyyy-mm-dd	Nationality:
Krbec	Jaroslav	M	1988-04-1	czech

**D. Main additional Scientific Staff**

Family Name :	First Name:	Gender: M/F	Date of birth: yyyy-mm-dd	Nationality:
Grover	Ondřej	M	1992-04-14	czech

**8. BUDGET - Estimate for coming project year (please show all amounts in EUR €):**

<b>Total Project budget in €</b>	107800
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**A. Equipment, materials, supplies to be purchased by the IAEA on behalf of the Institute:**

<b>Items</b>	<b>Estimated project costs in €</b>
GOLEM tokamak operational costs	2500
Experimental tools	2500
<b>Sub-total:</b>	<b>5000</b>

**B. Miscellaneous (including transport\*):**

<b>Item</b>	<b>Estimated project costs in €</b>
<b>Sub-Total:</b>	

\* If funds for travel/transportation have been included in the budget, please indicate specific purpose:

**C. Total - All Costs (Budget Items A - B)**

<b>Total budget requested from the IAEA in €</b>	5000
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**9. WILL RESEARCH BE COMPLETED IN COMING YEAR?** Yes No**10. SIGNATURES****CHIEF SCIENTIFIC INVESTIGATOR**

Name (in capitals) SVOBODA VOJTECH

Signature

Date

**HEAD OF INSTITUTE**

Name (in capitals) IGOR JEX

Signature

Date