



ACCREDITATION DECISION

After the external programme evaluation implemented by the High Council for Evaluation of Research and Higher Education (Hcéres) in November 2019, and according to the accreditation criteria adopted by the Hcéres Board on October 4th, 2016,

THE COMPUTATIONAL AND DATA SCIENCE AND ENGINEERING (CDSE) PhD PROGRAM

Skoltech - Russia

is fully accredited for 5 years
(April 2020 - April 2025)

Paris, April 15th, 2020
Nelly Dupin, Hcéres Acting President



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COMPUTATIONAL AND DATA SCIENCE AND ENGINEERING (CDSE) DOCTORAL PROGRAM

Skolkovo Institute of Science and
Technology
(Skoltech)

Russia

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April 2020

SCOPE OF THE ACCREDITATION GRANTED BY HCERES

HCERES has built its evaluation process based on a set of objectives that higher education institution study programmes must pursue to ensure recognised quality within France and Europe. These objectives are divided up into four fields among which are the accreditation criteria.

As for the "External Evaluation Standards", the accreditation criteria have been specifically designed for foreign programmes. The accreditation criteria were adopted by the Board on June 2016 and are available on the HCERES website (hceres.fr).

The accreditation committee, meeting his accreditation decision, has wholly taken into account the final evaluation report of the study programme. This accreditation decision is the result of a collegial and reasoned process.

The accreditation decision issued by HCERES shall not grant any rights whatsoever, whether in France or abroad. The decision on training programme accreditation confers an accreditation label and does not infer recognition of the accredited qualifications. The HCERES accreditation process therefore has no impact on the qualifications recognition process in France.

THE HCERES CRITERIA FOR DOCTORATE ACCREDITATION

HCERES has built its doctorate evaluation and accreditation process on a set of values and objectives that doctorates must pursue to ensure a certain level of quality.

These objectives are organised around four areas:

- Area 1: Positioning of the doctorate
- Area 2: Organisation and management of the doctorate
- Area 3: Supervision and training of doctoral students
- Area 4: Integration of doctors into the job market.

AREA 1: POSITIONING OF THE DOCTORATE

Accreditation criteria

- The positioning, the content and the objectives of the doctorate are clearly defined. Its interactions with the stakeholders (lead institution(s), foreign partners, socio-economic environment) are formally set out and effective. Its links with the research units and the institution's scientific policy are effective.

Criterion assessment

Within a few years, the CDSE PhD has been established as a leading program of excellence in Russia. It is well-structured and organized at both academic and administrative levels. It currently has 105 PhD students and is targeting a further 20% growth. CDSE focuses on an original and clearly-defined scientific domain combining mathematical modelling, data analysis, machine learning and artificial intelligence. The CDSE PhD program is supported by 23 research laboratories, the majority of which work in close cooperation with industry, in particular with the Skolkovo Innovation Center. The CDSE PhD program is well characterized and identifiable within the Skoltech Institute and in the Russian academic environment more generally.

AREA 2: ORGANISATION AND MANAGEMENT

Accreditation criteria

- The doctorate's organisation and management are clearly defined and rely on material and human resources adapted to the requirements of programmes at ISCED level 8. Internal quality assurance mechanisms are in place and effectively used in order to improve continuously the doctorate. The doctoral students recruiting is formally set out, their funding is fair and sustainable.

Criterion assessment

The CDSE PhD program is very well organized with excellent administrative support from the Department of Education (DoE) and Doctoral Study Office. Quality control is provided via student feedback, internal communication from faculty and administrative offices. The recruitment of students is very well organized through a clearly-defined two-step procedure. The fellowship policy is clearly advertised and carried out, including annual reviews and adjustment of the amount of stipends according to students' achievements. All students benefit from a high level of support. Their progress is followed closely through regular meetings and formal annual reviews. The requirements to obtain the PhD (number of course credits, publications, etc.) match international standards. Several committees have been set up to monitor and organize the professional and personal life of the students. Finally, students regularly attend seminars and working sessions conducted by local and international visitors.

AREA 3: SUPERVISION AND TRAINING FOR DOCTORAL STUDENTS

Accreditation criteria

- A strict policy of supervising and follow-up of doctoral students is set. Doctoral students have access to various teaching and professional trainings and take part in scientific/professional actions. Explicit rules are defined concerning the thesis duration and defense. Measures to combat fraud, plagiarism and corruption are applied within the doctorate.

Criterion assessment

Supervision and training of the PhD students are conducted to the highest international standards. Several committees are involved in accompanying the students during their thesis: the Doctoral Study Office; the CDSE Doctoral Program committee; the Individual Doctoral Program committees; the Disciplinary Board; and the PhD Defense Jurys. These committees guide the students closely and can be called in on demand, in compliance with Skoltech policy. In addition, an extensive and high-quality teaching offer is proposed to the students, from which they can compose their personalized curricula. The number of students directed by the different supervisors is very uneven. Action is currently being taken to fix these discrepancies.

AREA 4: INTEGRATION OF DOCTORS INTO THE JOB MARKET

Accreditation criteria

- The doctorate implements systems to promote the doctorate and the integration of doctors into the job market. The integration monitoring and analysis are effective and used to perform the continuous improvement of the doctorate.

Criterion assessment

Due to the very recent creation of the CDSE PhD program, few PhD students have graduated so far. No conclusive assessment of this criterion can be provided as yet.

However, the first 5 PhD graduates of the CDSE program were all employed at the time of the visit. The strong links established by CDSE laboratories with industry should help students find their place on the job market in the forthcoming years. Integration into the academic world must be enhanced, however.

FINAL DECISION

Considering the accreditation criteria analysis detailed above, the accreditation committee issues the following decision:

“Five-year unreserved accreditation decision”

and draws attention to the following points:

- **Enforce a better assignment of students to supervisors. Ensure that all CDSE members susceptible to supervise are offered the possibility to do so. Avoid concentrating a large number of students under the supervision of the same colleague.**
- Select a limited set of priority application fields to enhance the applicative focus of CDSE.
- Enforce new guidelines (and ways to implement them) to monitor the work and professional life of students conducting their PhD within an industry laboratory.
- Develop new collaborations and increase CDSE visibility in the academic world, in order to facilitate the hiring of students.
- Intensify collaboration and establish formal relationships and joint PhD thesis with Moscow and other national and international Universities.
- Monitor growth carefully and anticipate the hiring of more administrative staff to accompany more students with the same level of quality as of today.

SIGNATURE

For HCERES and on behalf of



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Date: Paris, April 15th, 2020

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are available online : www.hceres.com

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