# IV INTERNATIONAL DOCTORAL CONSORTIUM ON INFORMATICS AND INFORMATICS ENGINEERING EDUCATION RESEARCH: SCOPE, METHODS, AND VALIDATION

Vilnius University Institute of Mathematics and Informatics in cooperation with
Research Council of Republic of Lithuania
Lithuanian Computer Society

## Senior Researchers

Prof. Erik Barendsen, Radboud University Nijmegen

Prof. Juris Borzovs, University of Latvia

Prof. Andrej Brodnik, University of Ljubjana, Slovenia

Prof. Robin Clark, Aston University, UK

Prof. Valentina Dagiene, Vilnius University

Prof. Gerald Futschek, Vienna University of Technology, Austria

Dr. Tatjana Jevsikova, Vilnius University

Dr. Eugenijus Kurilovas, Vilnius University

Prof. Lauri Malmi, Aalto University, Finland

Prof. Carsten Schulte, Berlin Freie University, Germany

Dr. Bronius Skūpas, Vilnius University, Vilnius Liceum

Dr. Mary Webb, King's College London, UK

December 3–7, 2013

Druskininkai, Lithuania

Short presentation of DC2012 you can watch at: http://www.youtube.com/watch?v=86e6-ibMiIQ

The Fourth International Doctoral Consortium (DC) is organized by Vilnius University Institute of Mathematics and Informatics on December 3–7, 2013 in Druskininkai, Lithuania. The DC provides an opportunity for doctoral students to explore and develop their research interests in a workshop under the guidance of distinguished senior researchers. We invite students who feel they would benefit from this kind of feedback on their dissertation work to apply for this unique opportunity to share their work with students in a similar situation as well as senior researchers in the field. We welcome submissions from students at any stage of their doctoral studies.

**The DC has the following objectives:**

- Offer a friendly forum for doctoral students to discuss their research topics, research questions and design in the field of computing education / educational technology – informatics engineering and education
- Provide a supportive setting for feedback on students' current research and guidance on future research directions
- Offer each student comments and fresh perspectives on their work from researchers and students outside their own institution, as well as help with choosing suitable methodology and strategies for research
- Support networking with other researchers in the informatics engineering education research field, and promote the development of a supportive community of scholars and a spirit of collaborative research
- Support a new generation of researchers with information and advice on research and academic career paths

**Preparing and Submitting your DC Proposal**

Each participant should submit an Extended Abstract of two A4 pages research description covering central aspects of your PhD work, which follows the structure, details and format specified in the submission template (VU2014-dc-template.doc). Key points include:

1. Your situation, i.e., the university doctoral program context of your work
2. Clear formulation of the research question(s)
3. Very short background/literature review of key works that frames your research
4. Identification of the significant problems in the field of research
5. Research objectives/goals
6. Sketch of the applied research methodology (data collection and analyzing methods)
7. Results to date and their validity
8. Current and expected contributions

The summary will be made available for other participants of the DC to allow providing feedback and preparing questions on the research. Since the goals of the DC include building community, participants will be expected to read all of the Extended Abstracts of your colleagues prior to the beginning of the consortium with a goal of preparing careful and thoughtful critique.

Applicants should send the research proposal by email to Valentina Dagienė (valentina.dagiene@mii.vu.lt) by November 20th, 2013. When submitting the applications, please put "VU-DC-013-<Last Name>" in the Subject line.

**Upon Acceptance of your DC Proposal**

Each student will present his or her work to the group with substantial time allowed for discussion and questions by participating researchers and other students. Each student should bring a poster for sharing with mentors and other students during the DC sessions. Students will have possibility to rethink and improve their submissions according to suggestions of senior researchers or other participants. The corrected posters will be presented at final session.

## A G E N D A

**Tuesday, December 3**

13:00 – 17.45   Arrival in Vilnius airport and transfer to Druskininkai

20:00 – 23.00   Welcome and discussions

**Wednesday, December 4**

07.30 – 09.00   Breakfast

09.00 – 11.00   Presentation and discussion by Prof. Dr. Lauri Malmi (Aalto university, Finland). An Overview of Computing Education Research – Research Topics and Research Processes

11.00 – 11.30   Coffee break

11.30 – 12.30   5 min challenge – Presentation posters and key research questions by doctoral students (individual level). Chaired by Prof. Dr. Valentina Dagienė

13.00 – 14.00   Lunch

14.00 – 17.30   Discussion in groups organized by Dr. Mary Webb (King's College London, UK). How can qualitative research techniques support research in computer science /ICT education research? With coffee break at 16.00

15.30 – 16.00   Coffee break

18.00 – 19.00   Dinner

19.00 – 22.00   Late discussions

**Thursday, December 5**

07.30 – 09.00   Breakfast

09.00 – 10.00   Presentation by Prof. Dr. Carsten Schulte (Berlin Freie University, Germany): On Computer Science Education Research: Reality and Future

10.00 – 10.30   Coffee break

10.30 – 12.00   Group work: Students will be divided in 3-4 groups according to their topics, the research seniors will be appointed to each group.

12.00 – 13.00   Lunch

13.00 – 15.00   Excursion or/and cryotherapy

15.30 – 16.00   Coffee break

16.00 – 18.00   Group work: Improve your poster which summarizes your research: BIG research question, goal, subtasks, data collection and analysis methods, theoretical framework, scope, and use of results.

18.00 – 19.00   Dinner

19.00 – 22.00   Late discussions in groups

**Friday, December 6**

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| 07.30 – 09.00 | Breakfast |
| 09.00 – 11.00 | Prof. Dr. Andrej Brodnik (Ljublana University, Slovenia). Suggestions and criteria for writing informatics education doctoral thesis |
| 11.00 – 11.30 | Coffee break |
| 11.00 – 13.00 | Reading DC posters: All participants are asked to read the posters and write down their questions and comments |
| 13.00 – 14.00 | Lunch |
| 14.00 – 15.30 | Group work. Renewing DC posters |
| 15.30 – 16.00 | Coffee break |
| 16.00 – 18.00 | Groups overview. Summaries and suggestions by group leaders. General discussion, including a brainstorming session about current and future research topics in the area. Reflection from all participants. |
| 18.00 – 20.00 | Closing dinner |

**Saturday, December 7**

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| 07.30 – 09.00 | Breakfast |
| 09.30 | Departure to Vilnius airport |