

Career Development Plan-Year 1 (first six months)

Name of fellow: Yuliya Tarabalka

Department: Norwegian defence research establishment (FFI)

Name of Supervisor: Torbjørn Skauli

Date: 21 August 2007

BRIEF OVERVIEW OF RESEARCH PROJECT AND MAJOR ACCOMPLISHMENTS EXPECTED:

FFI conducts research into hyperspectral imaging motivated by potential military applications. The activity spans from basic scientific studies to engineering development, and encompasses the entire signal chain from scene to user. Thus a main goal of the first six months of the fellow's Hyper-I-Net appointment is to give the fellow a general introduction to the basic concepts, methods, technologies and applications of hyperspectral imaging. This will include planning and conduction of field trials.

The second main goal of the stay at FFI is to conduct research in hyperspectral image processing. The emphasis will be on statistical methods and parallel processing implementations. The fellow is expected to be co-author of 1-3 journal or conference papers. Furthermore it is a goal for the fellow to be lead author, alternatively one of the lead authors, of at least one paper in order to gain experience with preparation of a manuscript.

LONG-TERM CAREER OBJECTIVES (over 5 years):

1. Goals:
 - Complete a PhD
 - Do postdoctoral research towards qualifying for a junior faculty position at a university
2. What further research activity or other training is needed to attain these goals?
 - To conduct research of good quality, truly worthy of publication
 - Good supervision and mentoring
 - Training in scientific writing and presentation

SHORT-TERM OBJECTIVES (For the six months at FFI):

1. Research results
 - o Anticipated publications:
 - 1-2 papers on hyperspectral image processing, involving the use of multiprocessor architectures

- Anticipated conference, workshop attendance, courses, and /or seminar presentations:
 - IGARSS 2007, Barcelona
 - Hyper-I-Net summer school, Caceres
 - Pattern recognition course at UNIK/University of Oslo
- 2. Research Skills and techniques:
 - Basic concepts, methods, technologies and applications of hyperspectral imaging
 - Multiprocessor programming
 - Statistical mixture models
- 3. Research management:
 - No particular management activities foreseen at this early stage except structuring of own work and collaboration with colleagues
- 4. Communication skills:
 - Manuscript writing
 - Presentation of own work at conference and/or summer school
- 5. Other professional training (course work, teaching activity):
 - None foreseen at this time
- 6. Anticipated networking opportunities
 - IGARSS conference attendance
 - Hyper-I-Net summer school
 - Collaboration with other groups, at FFI and the University of Oslo
- 7. Other activities (community, etc) with professional relevance:
 - Introductory course in Norwegian language

Date & Signature of fellow:

Date & Signature of supervisor