NIVA Education

# Techniques for Assessment of Activities and Postures at the Workplace

STAMI – The National Institute of Occupational Health, Oslo, Norway
8 – 10.10.2019

| Tuesday, 8.10.2019 | | |
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| 10.00-10.15 | Course registration and coffee | |
| 10.15-10.45 | Opening of the course:<br>• Presentation of participants, course leaders and lecturers<br>• Practical matters | **Bo Veiersted**<br>**Morten Jakobsen, NIVA** |
| 10.45-11.45 | Introduction, aim, broad approach<br>Activity, inactivity and "wrong activity" related to health<br>Main purposes for technical measurements<br>Priorities for this course | **Bo Veiersted** |
| 11.45-12.30 | Which characteristics of physical activity and posture should we measure? | **Andreas Holtermann** |
| *12.30-13.15* | *Lunch* | |
| 13.15-14.30 | How to assess activity and postures (part 1)<br>• Questionnaire (examples, validity)<br>• Observation methods<br>• Mobile phone apps and activity trackers (e.g. Fitbit) | **Markus Koch**<br>**Mikael Forsman**<br>**Bo Veiersted** |
| *14.30-14.45* | *Coffee break* | |
| 14.45-15.30 | How to assess activity and postures (part 2)<br>• Accelerometers (e.g. GC X 16 mini, axivity AX3)<br>• Aggregated methods (full body posture, combinations with EMG, HR, insoles, smart clothes) | **Inger Arvidsson**<br>**Britta Weber**<br>**Markus Koch**<br>**Mikael Forsman** |
| 15.30-17.30 | Practical demonstration of use (in plenum) and mounting of accelerometers (Axivity, AX3) on participants in smaller groups.<br>**Participants**; bring suitable clothing for AX3 mounting on right thigh, upper back and right upper arm. Practicing reference procedures and test exposures. | **Lars-Kristian Lunde**<br>**Markus Koch**<br>**Inger Arvidsson** |

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| 17.30 | End of today's technical program<br>Physical activity dependent on group | **Participants** |
| *19.00-21.30* | **Social program: Dinner at [Brasserie Blanche](#)**<br>Josefines gate 23, 0351 Oslo<br><br>Demounting of AX3 after dinner | |

| Wednesday, 9.10.2019 | | |
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| 8.30-10.00 | Presentation of how to download data, process and visualize/analyze in plenum<br>Data program for processing/analyzing activity measures (Acti4) and "Quick analyses" of postures and movements (Lund program) will both be available as "take home" programs for the participants<br>Examples from some of the participants | **Lars-Kristian Lunde**<br>**Markus Koch**<br>**Inger Arvidsson**<br>**Bo Veiersted** |
| *10.00-10.15* | *Coffee break* | |
| 10.15-11.00 | What do we get out of this kind of data? - Project examples | **Markus Koch**<br>**Lars-Kristian Lunde**<br>**Mikael Forsman**<br>**Andreas Holtermann** |
| 11.00-12.00 | Accelerometers, principles for use:<br>• What devices are available (e.g. "simple" accelerometers or IMU?)<br>• How to choose<br>• Data collection strategy<br>• Pitfalls<br>Examples from PEROSH guidelines for assessment of sedentary work and work with elevated arms.<br>([https://perosh.eu/research-projects/perosh-projects/](https://perosh.eu/research-projects/perosh-projects/)) | **Britta Weber**<br>**Mikael Forsman** |
| *12.00-12.45* | *Lunch* | |
| 12.45-13.30 | Group work: Participants' own (and others) experience with physical exposure assessments – from questionnaire to aggregated methods? | **Participants** |
| 13.30-14.00 | Plenum: reports from groups | **Participants** |
| *14.00-14.15* | *Coffee break* | |
| 14.15-14.45 | General aspects of reference postures for accelerometers - Discussion | **Inger Arvidsson** |

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| 14.45-15.30 | Use of these methods for practitioners in enterprises and exposure assessment on individual level (assessment of individuals related to insurance etc.) | **Britta Weber**<br>**Inger Arvidsson** |
| 15.30-16.30 | How much – or little – physical exposure do we accept / is optimal? Action limits and evaluation approaches<br><br>End of today's technical program | **Inger Arvidsson**<br>**Britta Weber** |
| 17.30-21.30 | **Social program: Guided tour and dinner at Oslo Manor House (Oslo ladegård)**<br>17.30 Bus from Hotel Gyldenløve to Oslo's medieval quarter<br>18.00 Guided tour of Oslo Manor House<br>19.00 Dinner at the Manor House<br>21.00 Bus back to Hotel Gyldenløve | |

| Thursday, 10.10.2019 | | |
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| 8.30-10.00 | Everything you spend time on at work, matters: A concept to understand how work time spent on all ergonomic activities and pauses affect the health of workers:<br><br>What is 'whole work time', why it is important to understand it, how should we interpret results based on whole work time" – A compositional approach<br><br>Should we measure, interpret and act based on single independent work activities, or on the distribution of time spent on all activities? | **Nidhi Gupta**<br>**Andreas Holtermann** |
| *10.00-10.15* | *Coffee break* | |
| 10.15-11.00 | Group work: How do we understand compositional data analysis and how can we implement it in our own work? | **Participants** |
| 11.00-11.45 | Plenum: Reports from groups; how do we approach data analyses of our data (including compositional analyses) | **Participants**<br>**Lecturers** |
| *11.45-12.30* | *Lunch* | |
| 12.30-13.30 | Group work: How do the participants use information/discussion from this course when they come home? Both practical and research implications. Examples of wished, planned or ongoing projects may be presented. | **Participants** |

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| 13.30-15.00 | Plenum: Reports from groups including possible plans. Advices and recommendations will be given to the best knowledge and experience of lecturers and participants<br><br>Closing of the course and handing out certificates | **Participants**<br>**Lecturers** |