Virtual mobility in practice: the VMCOLAB project

Bas Bergervoet (KU Leuven) – ELIES Conference, Porto - 26-11-2014

vmcolab.eu

VMCOLAB

‘European Co-Laboratory for the Integration of Virtual Mobility in Higher Education Innovation and Modernisation Strategies’

Duration: 1 October 2012 – 31 January 2015

Partners:

- **KU Leuven (BE)**
- EFQUEL (BE)
- Coimbra Group (BE)
- University of Padova (IT)
- **University of Porto (PT)**
- Vytautas Magnus University (LT)
- University of Granada (ES)
- United Nations University (DE)
- University Politehnica of Bucharest (RO)

Funded by the European Commission under the Lifelong Learning Programme

Lifelong Learning Programme

Project aims

"contribute to the innovation and internationalisation of European Higher Education Institutions by exploiting the full potential of ICT and Virtual Mobility and broadening the access to an international learning experience for all European students"

"develop support materials and services for those wanting to engage in virtual mobility experiences"

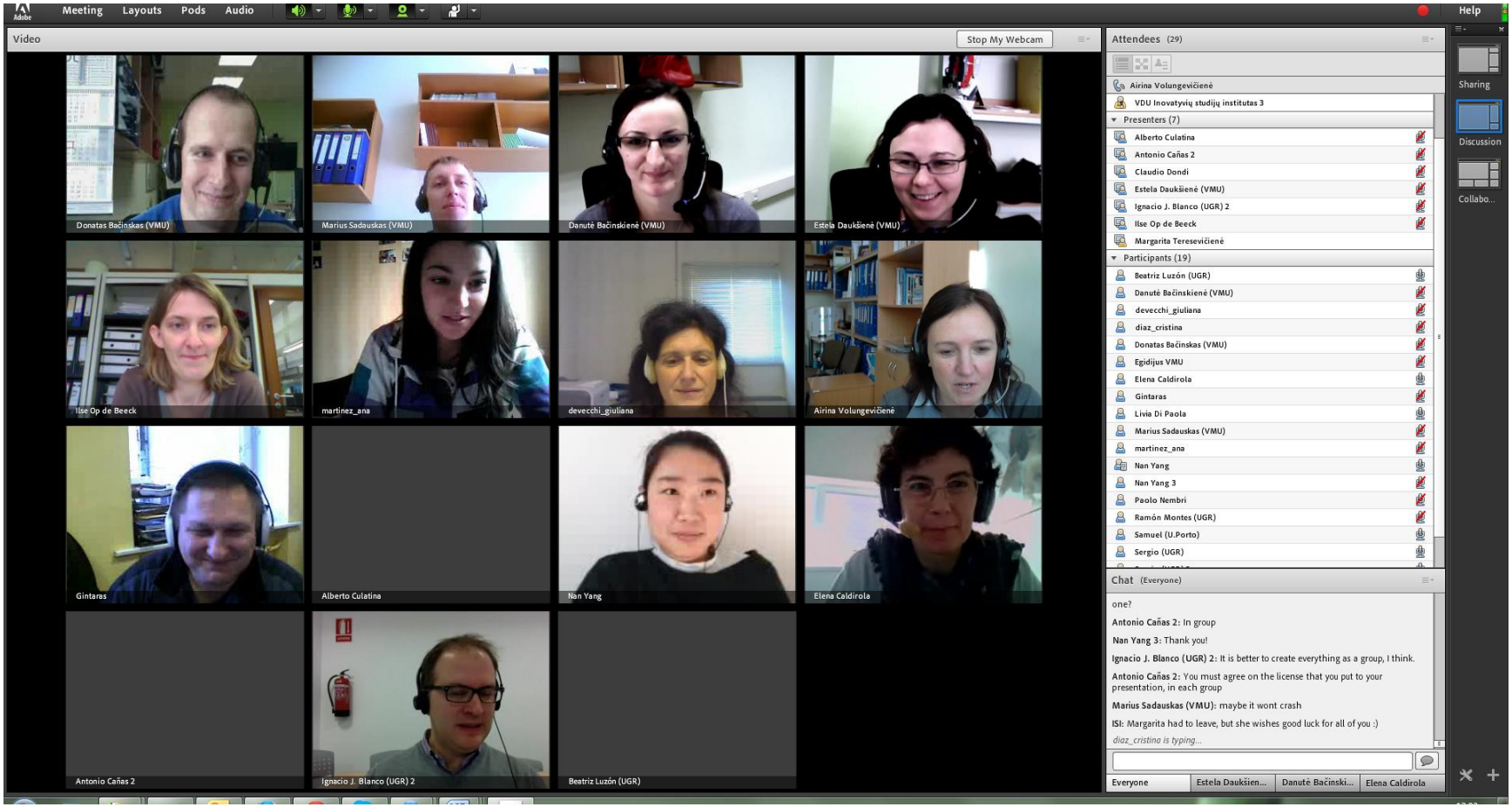
VM definition

"*set of information and communications technology supported activities, organized at institutional level, that realize or facilitate* ***international***, ***collaborative*** *experiences in a context of teaching and/or learning*"

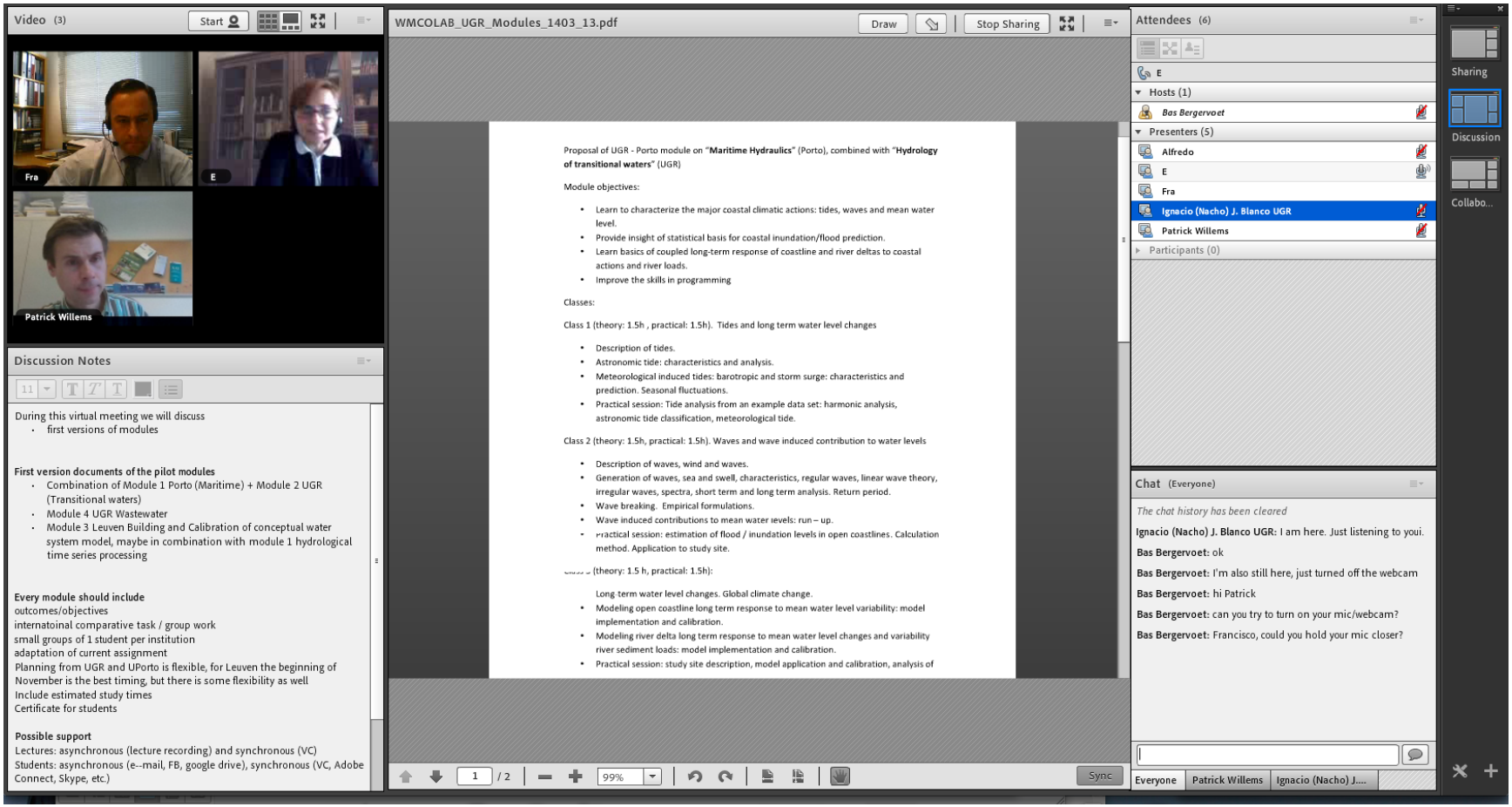
VM definition in normal words ☺

"*Learning and working together online with a group of international students and teachers*"

Student VM in action



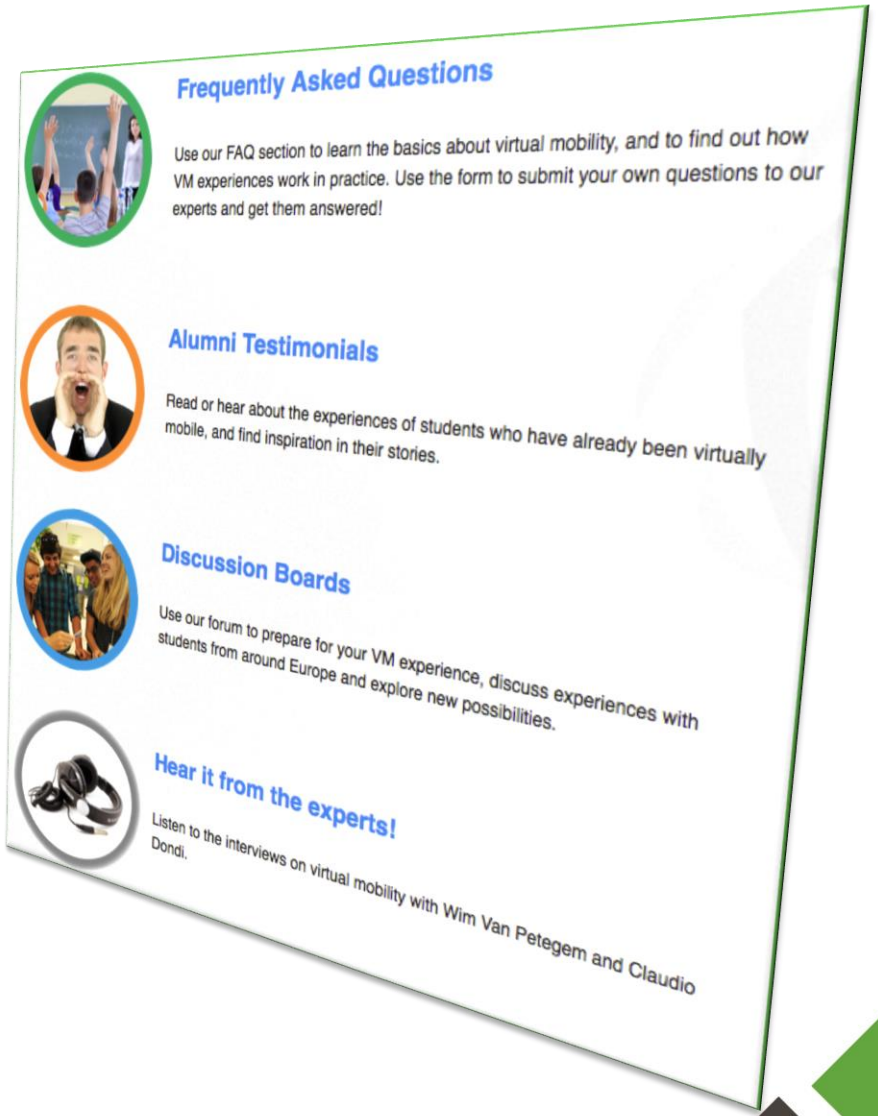
Teacher VM in action



Objectives/Results

- Quality Assurance handbook for Virtual Mobility
- Virtual Mobility Integration Kit
- Institutional Awareness Seminars
- ‘Virtual4Me’ website for students: virtual4me.vmcolab.eu
- *Policy recommendations & policy event*

- And….. **Pilots!**



Pilots

- Pilot on Open Educational Resources, led by Vytautas Magnus University
- Pilot on Water Management, led by KU Leuven
- Pilot on Career Service Staff Training, led by University of Padova

--> Piloting guidelines & training course

Course overview

VM Course on water management: time series analysis and modelling

- Module 1: Hydrological time series processing and conceptual rainfall-runoff modelling
  Prof. P. Willems – KU Leuven (Belgium)
- Module 2: Introduction to surface water quality modelling
  Prof. F. Rueda – University of Granada (Spain)
- Module 3: Introduction to maritime hydraulics and hydrology of transitional waters
  Prof. Francisco Taveira Pinto – University of Porto (Portugal)
  Prof. E.Sánchez-Badorrey – University of Granada (Spain)

Course overview

VM Course on water management: time series analysis and modelling

- Module 3: Introduction to maritime hydraulics and hydrology of transitional waters

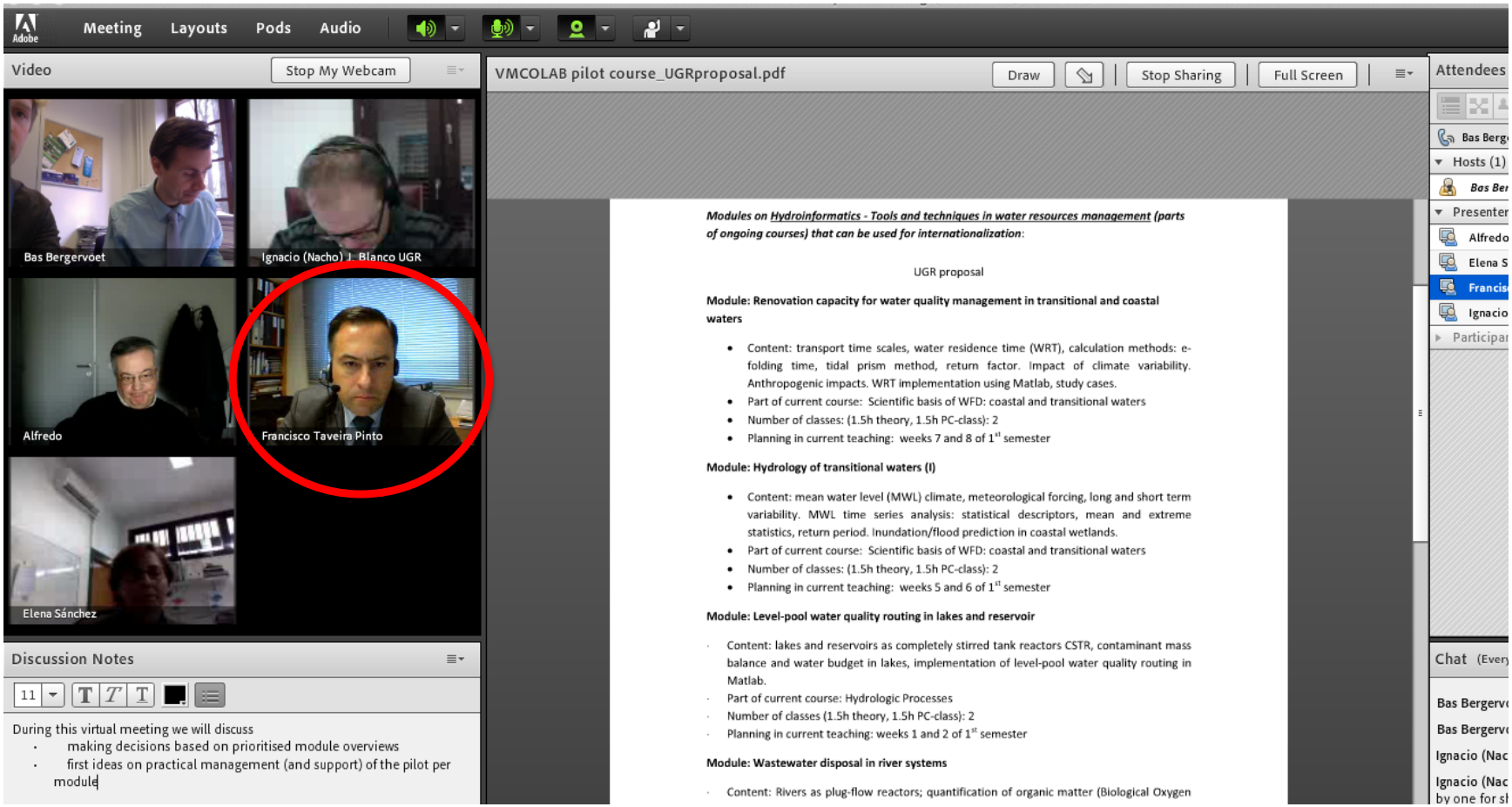
Prof. Francisco Taveira Pinto – University of Porto (Portugal)

- Wave generation, propagation and transformation on oceans to shore;
- Regular and irregular waves (Prof. Paulo Santos);
- Methods for defining coastal inundation levels (Dr. Raquel Silva).

Prof. Elena Sánchez - Badorrey – University of Granada (Spain)

- Tide generation and water level changes;
- Long-term mean water level change due to climate change.

VM in action


Meeting
Layouts
Pods
Audio
Video
Stop My Webcam
Bas Bergervoet
Ignacio (Nacho) J. Blanco UGR
Alfredo
Francisco Taveira Pinto
Elena Sánchez
Discussion Notes
During this virtual meeting we will discuss
making decisions based on prioritised module overviews
first ideas on practical management (and support) of the pilot per module
VMCOLAB pilot course_UGRproposal.pdf
Draw
Stop Sharing
Full Screen
Modules on Hydroinformatics - Tools and techniques in water resources management (parts of ongoing courses) that can be used for internationalization:
UGR proposal
Module: Renovation capacity for water quality management in transitional and coastal waters
Content: transport time scales, water residence time (WRT), calculation methods: e-folding time, tidal prism method, return factor. Impact of climate variability. Anthropogenic impacts. WRT implementation using Matlab, study cases.
Part of current course: Scientific basis of WFD: coastal and transitional waters
Number of classes: (1.5h theory, 1.5h PC-class): 2
Planning in current teaching: weeks 7 and 8 of 1st semester
Module: Hydrology of transitional waters (I)
Content: mean water level (MWL) climate, meteorological forcing, long and short term variability. MWL time series analysis: statistical descriptors, mean and extreme statistics, return period. Inundation/flood prediction in coastal wetlands.
Part of current course: Scientific basis of WFD: coastal and transitional waters
Number of classes: (1.5h theory, 1.5h PC-class): 2
Planning in current teaching: weeks 5 and 6 of 1st semester
Module: Level-pool water quality routing in lakes and reservoir
Content: lakes and reservoirs as completely stirred tank reactors CSTR, contaminant mass balance and water budget in lakes, implementation of level-pool water quality routing in Matlab.
Part of current course: Hydrologic Processes
Number of classes (1.5h theory, 1.5h PC-class): 2
Planning in current teaching: weeks 1 and 2 of 1st semester
Module: Wastewater disposal in river systems
Content: Rivers as plug-flow reactors; quantification of organic matter (Biological Oxygen
Attendees
Hosts (1)
Presenter
Alfredo
Elena S
Ignacio
Chat

VMCOLAB

- Partners: UGR; KU Leuven; UP/FEUP;
- I have been involved in this pilot for the last 11 months;
- Goal: setup of a virtual course related to water management;
- Contents were defined after a few iterations;
- No ECTS attributed to FEUP students;
- VMCOLAB in parallel with normal classes: extra work with other lectures, exams, assignments;

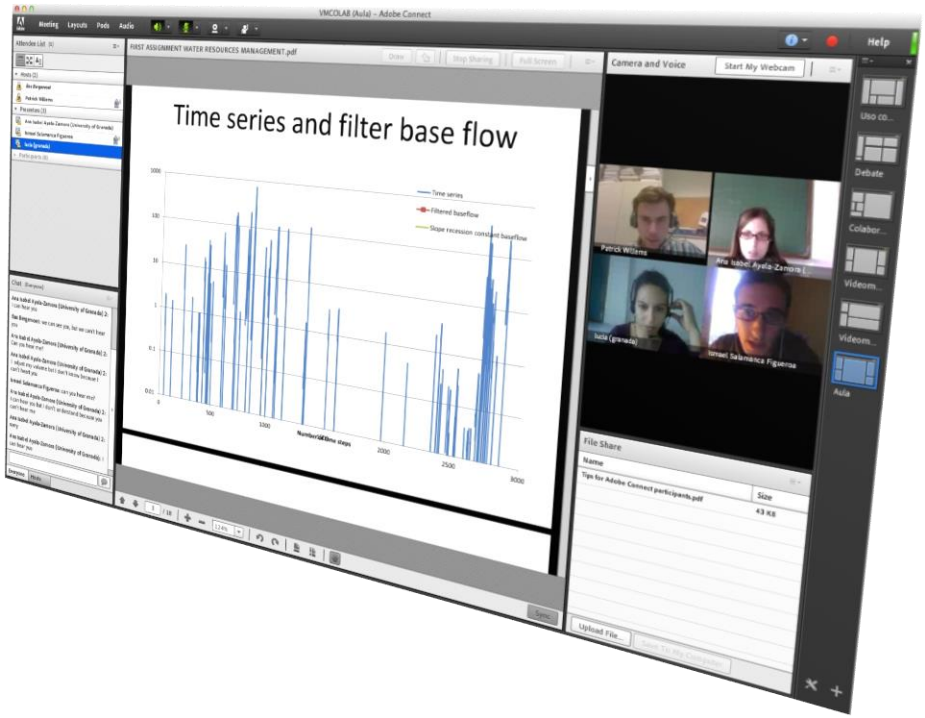
- Academic year at FEUP started in middle September;
- Students were contacted a little bit later (I am on sabbatical leave…);
- Topic was considered interesting for the students (4 said yes, but only 3 were selected – last year of MIEC)…;

- There's some lack of time available for the course, but I think they are keen to do and finish it;
- Technical problems: not reported;
- Better communication between students of different Universities – to improve;
- More time for assignments/course;
- FEUP: PPT in English to prepare on time…

- Good opportunity to prepare new teaching material;
- Good opportunity to interact with other universities;
- Good opportunity to exchange datasets;
- Good opportunity to involve other teachers;
- Good opportunity to use new teaching tools.

Tips for starting a VM Course

- Use existing networks
- Use an international comparative approach
- What needs to be done synchronously, what can be done asynchronously?
- Check your local support
- Familiarize yourself with the chosen tools
- Define clear roles and tasks amongst involved staff
- Planning is everything!



More information

VMCOLAB project website

www.vmcolab.eu

Virtual4Me website (for students)

virtual4me.vmcolab.eu