



**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ**

(міністерство або центральний орган виконавчої влади, якому підпорядкований заклад освіти)

**УМАНСЬКИЙ НАЦІОНАЛЬНИЙ  
УНІВЕРСИТЕТ САДІВНИЦТВА**

(повна назва вищого закладу освіти)

**СВІДОЦТВО  
про підвищення кваліфікації  
СПК 00493787/101-19**

Видано

**КУЧМІ  
ТЕТЯНІ ЛЕОНІДІВНІ**

(прізвище, ім'я, по батькові)

про те, що з 12 серпня 2019 року  
по 23 серпня 2019 року

Він (вона) підвищував(ла) кваліфікацію в  
НКЦ «Інститут післядипломної освіти та  
дорадництва» Уманського національного  
університету садівництва

(повна назва закладу освіти)

За час навчання опрацьовано 90 год.

Назва теми (курсу)	Навчальний час
Педагогічна майстерність викладача	30
Використання інформаційно-комунікаційних технологій у роботі викладача	30
Інновації в педагогічному процесі при викладанні дисципліни «Агроекологічний моніторинг»	30

Ректор



М.П.

23 серпня 2019 р.

Реєстраційний номер 101

О.О. Непочатенко



This certifies that

**Tetyana Kuchma**  
*Ukraine*



successfully completed a course on  
**Environmental Management of Nature Parks and Reserves:  
Focus on Ecosystems Services**  
June 10<sup>th</sup> – June 29<sup>th</sup>, 2018

Ambassador Peleg Lewi  
Director of training and capacity building  
MASHAV  
Ministry Of Foreign Affairs

Dr. Elli Gröner  
Scientific Director of the  
Dead Sea and Arava Science Center

Dr. Shmuel Brenner  
Director of the Arava Center for  
Sustainable Development, AIES

Birmensdorf, September 8, 2018

Dr. Peter Brang  
Forest Resources and Management  
Phone +41-44-739 24 86, fax +41-44-739 22 15  
peter.brang@wsl.ch



Summer School Old-Growth Forest Research

To whom it may concern

We hereby confirm that **Tetjana Kuchma** successfully participated in the Summer School on Old-Growth Forest Research, held in Nyzhnje Selyshche, Ukraine between September 2<sup>nd</sup> and 8<sup>th</sup>, 2018. The Summer School included:

- 8 hours of lectures
- 40 hours of project work, including preparation before the start of the Summer School
- 15 hours of field trips including field work in the primeval beech forest of Uholka-Shyrokyi Luh.

The total workload of 53 hours is equivalent to **2 European Credit Transfer System (ECTS)** points.

On behalf of the organizing committee

Yours sincerely

Dr. Peter Brang



# Certificate

*Tetyana Kuchma*

has participated in the international teachers training

***Baltic University Programme SAIL for Teachers***  
***Sustainability Applied in International Learning and Teaching (35 h)***  
***30 June – 7 July 2016, Stavanger, Norway – Antwerp, Belgium***

The SAIL was carried out on board sailing ship "Fryderyk Chopin" during one week sailing on the North Sea, starting from Stavanger, Norway, ending in Antwerp, Belgium. The aim was to enhance understanding of sustainability issues in global and local perspective, train teaching and learning methods, give skills for working in multidisciplinary international environment and support teambuilding capabilities for university teachers.

The academic programme included lectures, workshops, presentations and discussions on sustainability issues. The content focused on the United Nation's (UN) new Sustainable Development Goals (SDGs). Innovations in higher education systems, and learning and teaching methods were included. The participants contributed with their own expertise and each participant presented their contribution as a part of a thematic working group. The participants represented different disciplines supporting multi- and interdisciplinary approach. International working groups and three sailing groups watches, promoted multicultural teambuilding. The participants represented 24 universities from 9 countries.

Turku / Åbo, 13 September 2016

Sinikka Suomalainen  
Planning officer  
The Baltic University Programme  
BUP Centre Finland  
Åbo Akademi University



This SAIL for Teachers was organized by the Baltic University Programme Centre for Finland at Åbo Akademi University, and the Baltic University Programme Secretariat at Uppsala University, Sweden.





## CERTIFICATE of ACHIEVEMENT

THIS ACKNOWLEDGES THAT

*Tetyana Kuchma*

HAS SUCCESSFULLY COMPLETED THE

**Training on measuring SENDAI indicators  
Remote Sensing and in-situ Data**

MAY, 15  
2018

*Juan Villagran de Leon*  
SIGNED, Juan Villagran de Leon, Head of UN-SPIDER Bonn Office

*Nataliia Kufsul*  
SIGNED, Nataliia Kufsul, Deputy Director of Space Research Institute NASU-SSAU



# FREEWAT

Free and Open Source Software Tools for Water Resource Management  
EU HORIZON 2020 Project

## СЕРТИФІКАТ

Географічний факультет Київського національного університету імені Тараса Шевченка  
партнер проекту HORIZON 2020 FREEWAT в Україні грантова угода № 642224  
засвідчує, що

**Кучма Тетяна Леонідівна**

успішно закінчила навчальні курси

FREEWAT: Вільні та відкриті програмні інструменти для управління водними ресурсами  
та отримала практичні навички роботи  
з програмним забезпеченням QGIS 2.14 та FREEWAT 0.3

Декан географічного факультету  
заслужений діяч науки і техніки України  
академік НАПН України  
професор, доктор економічних наук

Київ-2017



Я.Б. Олійник

## GKSS - IOCCG Trainings Course

# Inversion Procedures in Ocean Colour Remote Sensing

10-14 August 2009, Hamburg / Lauenburg, Germany

## Certificate

Tanya Kuchma

Has actively participated in a Trainings Course on  
Advanced Inversion Procedures in Ocean Colour Remote Sensing,  
which was held in Lauenburg / Elbe in Germany, August 10-14 2009  
Organiser GKSS Research Center, Institute for Coastal Research

Lecturer



Dr. Roland Doerffer



Prof. Zhongping Lee



Dr. Stewart Bernard



Dr. Mark Dowell

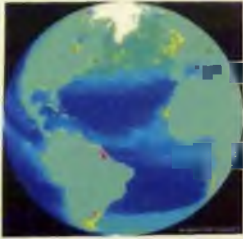
### Topics

- Data analysis
- Determination of the information content of reflectance spectra
- Optimization techniques
- Forward Modelling
- Direct algebraic solutions
- Inversion based on principle component analysis
- Inversion by artificial neural networks
- Classification methods
- Reducing variance in model parametrisation
- The influence of inelastic properties on inversion algorithms





## Effects of Climate Change on the World's Oceans International Symposium



**Tetyana Kuchma**

has participated in the International Symposium on the Effects of Climate Change on the World's Oceans, held in Gijón (Spain), from 19 to 23 May 2008.

On behalf of Organizing Committee



**ICES** International Council for the Exploration of the Sea  
**CIEM** Consejo Internacional para el Exploración de la Mar



## The 36<sup>th</sup> COSPAR Scientific Assembly

### CERTIFICATE OF ATTENDANCE

This is to certify that

***Tetyana Kuchma***

participated in the 36<sup>th</sup> COSPAR Scientific Assembly hosted by Committee on Space Research held from 16 to 23 July 2006 in Beijing, China

On behalf of the sponsors

Prof. Ji Wu

Secretary General of Local Organizing Committee