Erasmus+ Ka2 D.E.L.T.A. Project

_D_rones: _E_xperiential _L_earning and New _T_raining _A_ssets

Newsletter no. 6– Final Conference 23rd May 2019

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At a glance

Did you know that many current job positions will not exist anymore in 10 years time? And did you also know that in 10 years time there will be many job positions that don't even exist today?

Most future job require STEM knowledge skills but more than 20% EU students perform low in STEM literacy.

Millions of STEM skilled workers are needed from the the job market but education strives to fill the gap!

DELTA Project's ambition is such alike: improving STEM literacy and skills in VET students thanks to Drone's technology, also preparing them for the tough job market of the future!

Why drones?

Students enrolled in VET courses often put endless efforts in studying Mathematics and Physics. Subjects are perceived as difficult and far away from real life.

Drones' technology applied to education combines learning experiences based on experiential practice, in an interdisciplinary approach:

engineering for solving design issues, production and maintenance of light aircraft, built with advanced materials that allow the flight in accordance with EU regulations;

mathematics (from trigonometry to set the flight plan, to 3D modeling through the cloud of points for volumetric calculations and remote sensing);

the physical and natural sciences to fully understand the application fields of technology.

Problem Based Learning

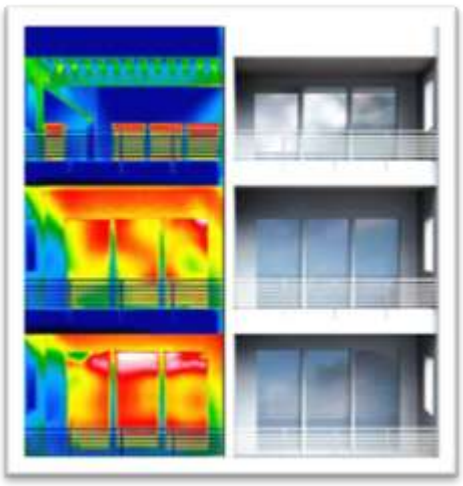
The motivation to learn starts with a problem: this is the methological approach that all partners share in DELTA project. When students face a problem to solve themselves, they are motivated to look for a practical solution, exploiting all the knowledge and skills that they have. This approach is more effective than the classical "chalk and talk" thoretical model of education.

Work Based Learning

Students learn in a work-based setting according a project-work approach. Teachers are encourage to build a learning environment that simulates the real work situation but that it is also safe and protected at the same time. This methodology enhances work related skills, entrepreneurship and employability of the pupils, preparing them for their future jobs. Students are also asked to share their knowledge and skills with their peers, according to a "collaborative learning model".

Drones: scientific & industrial applications

The study of drones is particularly instructive for students because it not only allows them to study their structure and functioning, but also and above all to appreciate and identify useful applications for solving scientific, industrial and environmental problems. The drones can in fact be used in the civil construction sector, for the inspection of buildings through the thermographic chamber ...

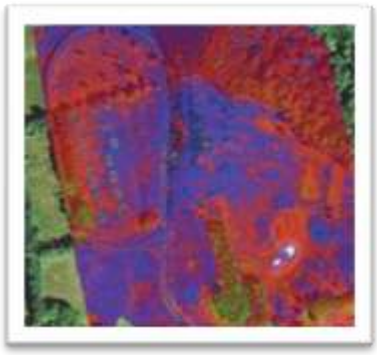
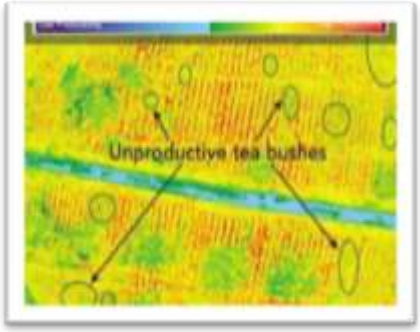


... but also in the chemical sector, to carry out analysis on groundwater pollution through sampling and air and water quality control.

Air sampling techniques allow for air collecting at different altitudes, up to over 125 meters above sea level, also allowing the operator's safety to be protected, which can keep him away from any sources of pollution.


Furthermore, in agriculture, the use of drones can be useful for promoting and using more efficient irrigation techniques, monitoring the phyto-sanitary status of crops and crops, and in precision farming.

Thanks to drones and visual analysis technologies, using instruments equipped with infrared rays, it is possible to detect infesting diseases in crops and thus prevent damage or death.

Last but not least, it is important to understand that drones, by nature light, versatile and easily maneuverable, can be used for humanitarian missions, for example to fly over flooded areas after a flood, or following an earthquake, to fly over the rubble and check for people to save.

Finally, a mission on which entrepreneurs and companies are aiming for the development of rural and poor areas is the ability of drones to transport and deliver medicines and blood easily for transfusions in settlements that are difficult to reach by means of transport due to inadequate roads and infrastructures or inaccessible.

EVENTS: 23rd May 2019 h 10-13, Final Conference at UPI, Parma, Italia

Invitiamo studenti, docenti, esperti di formazione e apprendimento, aziende del settore tecnologico e manifatturiero al Convegno di presentazione dei risultati del progetto DELTA!

Date: **Thursday 23rd May 2019 h 10-13**

Work-based learning: a strategic asset for our territory.

A dialogue among schools and businesses

Location: Salone Conferenze c/o Unione Parmense degli Industriali, Strada Al Ponte Caprazucca 6, 43121 Parma

Speakers

Unione Parmense degli Industriali – Institutional Greetings

Cisita Parma

"Designing work based learning paths through the construction and study of inoffensive drones"

Emilia Romagna Regional School Office (Delegate)

"The new challenges for work-based teaching in the current school context"

IISS C.E. Gadda (PR)

IISS A. Berenini (PR)

IIS A. Ferrari (MO)

CPIFP Corona de Aragon (Spagna) - LIIS Iasi (Romania)

"Drones and Work based learning:
Development of innovative applications & entrepreneurual Ideas in VET schools"

The event is accredited as Teacher Training on the SOFIA portal with ID 30404. Participating teachers will receive a certificate valid for the recognition of credits for professional training, issued by the Carlo Emilio Gadda School of Fornovo Langhirano (Parma). For info and registration contact Serena Gerboni c / o Cisita Parma scarl gerboni@cisita.parma.it

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