

## TIF Travel Grant Report – Dr. Francesca Panighini

### ISPRS TC V Mid Term Symposium on "Education & Outreach - Geospatial technology – Pixel to People"

My application to the ISPRS Foundation (TIF) Travel Grant has been aimed to attend the ISPRS TC V Mid Term Symposium 2018 "Geospatial Technology - Pixel to People", held in Dehradun (India) from 17<sup>th</sup> to 23<sup>rd</sup> November 2018. Moreover, I have been involved in the organization of the Pre-Symposium Tutorial "Ground based 3D Modeling (Close Range Photogrammetry & TLS)" as a Tutor.



*The participants to the pre-symposium Tutorial and the Tutors at the Forest Research Institute, Dehradun*

My research group belongs to the GECO Lab - Geomatics for Environment and Conservation of Cultural Heritage Laboratory, Dept. of Civil and Environmental Engineering (DICEA) of the University of Florence, Italy. We have been the main contributor to one of the Pre-Symposium tutorials, held from November 17<sup>th</sup> to 19<sup>th</sup>, and we have also presented our research to the main Symposium with two contributions. The research team, coming from Italy, was made by four people, with a multi-level experience in the geomatics field. Furthermore, we had to bring our instruments (laser scanner, cameras, etc) from Italy in order to properly manage the survey acquisition during the pre-symposium tutorial. For the above-mentioned reasons, it was a great cost for

our Lab and the additional funds, received by two members of the research group thanks to the TIF travel grants, were really helpful.

For what concerns my personal career, I'm a scholar of DICEA since February 2016. I am involved in several projects concerning education and technological transfer with students and other organizations. In particular, I have taken advantage of the tutorial experience, to test new ways for teaching the fundamentals of digital photogrammetry to beginners, through the use of new and updated educational and training resources, useful for supporting tutorials, workshops, seminars about the latest technological advances. In fact, the participation to this prestigious event is part of the "Education and training resources on digital photogrammetry" project, of which my scientific responsible, Prof. Grazia Tucci, is Principal Investigator, in collaboration with Prof. Anjana Vyas, Dr. Vikram Sorathia, Prof. Satwant Rihal as co-Investigators of the TC V/I group for the Education and Capacity Building Initiatives 2018.

Furthermore, my personal experience in the field of digitization of Cultural Heritage, laser scanner and restitution has been useful both during the Tutorial practical activities on the field and the theoretical lessons. In fact, I have given my contribution during the acquisitions for the survey of a part of the prestigious Forest Research Institute - FRI in Dehradun (18<sup>th</sup> November), by explaining how the laser scanner works to the participants. The following day was dedicated to the elaboration of the acquired data and I have showed the students the process of 2D restitution of sections and plans as final outputs of the 3D survey. Moreover, another of my tasks has been the video-documentation of all the tutorial activities, in order to create educational material once back in Florence.

During the Conference I have been in contact with international participants, mainly belonging to the wide remote sensing field, but also interested in ground-based applications for built heritage. In particular, after the key note speech, where our group showed the results of the FRI survey, they were very impressed by the visive impact of our work in such few days.

Finally, this experience was a great occasion to test our methods of knowledge transfer, through the learning-by-doing method during the tutorial. We have also received useful feedbacks from the students in order to further improve our educational activities. The Conference was also the occasion to present our research topics to a wide community of scientists, researchers and students, thus giving the chance to increase the contact network.

Thanks to The ISPRS Foundation for giving me this great opportunity. It was a great pleasure for me to accept this travel grant, thus being able to participate to the Conference.



*On-the-field activities during the acquisitions for the survey of a part of the prestigious Forest Research Institute – FRI building*



*In-class activities during the processing of the data acquired the previous day at the FRI and some restitution basics for the participants*

Florence, 06/12/2018

*Dr. Francesca Panighini*