NewsLetter

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SPECIAL ISSUE PART 1: Woman in science & Engineering

Interview with Prof. Dr. Filiz Sunar

In Memoriam: Kim Tilley

Art(istic) in Remote Sensing

Bali 2013 Summer School Report























ISPRS SC NewsLetter



Editor-in-Chief:

Ayda AKTAŞ

Technical Editor: Ayda AKTAŞ

Proof-Reading: Sylvie BROWNE

Contributors: Aleš LAZAR Urša KANJIR Chao-Yuan LO Ana DJURICIC Damla UÇA AVCI Ivan DETCHEV

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Would you like to join SC Newsletter team? Do you want to make a difference? Want to learn new skills?

SC Newsletter is at a stage where getting broader and better demands more people to be involved in the process of it's formation. That's why SC Newsletter team is looking for the following volunteers:

- More people who would be willing to prepare articles for existing or new rubrics,
- Designers of Newsletter,
- English native speakers for proof reading.

If you can help us with any of the above, please let us know!

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And also...

If you **would like to publish your research work** in the SC Newsletter send us your abstract on email written above. We will soon contact you for further information.

Dear ISPRS SC Newsletter readers,



Malcolm X once said: "To educate a man is to educate an individual; to educate a woman is to educate a nation". Like many sayings, this one makes its point by unqualified exaggeration to capture our attention. And yet, remote sensing, photogrammetry, geomatics and GIS fields are still dominated by

men. Women are especially underrepresented in the hard sciences or STEM fields (STEM stands for 'Science, Technology, Engineering and Mathematics'), especially in leadership positions. Therefore the scientific community remains male-dominated, although the situation should be different: women and men are equals and hence deserve equal opportunities. Despite the gains that have been made through history by female scientists and engineers, many problems still hinders the progress of bright women. It is not possible to find the exact gender distribution of men and women in remote sensing, photogrammetry, geomatics or GIS fields, but according to some research done in similar sectors for some parts of the world, women make up less than one quarter of the team. But according to The Guardian¹, female scientists, despite being underrepresented overall, are more productive and have a greater scientific and/or societal impact than men. This means that providing women with greater access to scientific frontier is good for society and the economy as a whole. We would like to inspire all female readers to get more in-

volved in the profession. Therefore we decided to dedicate a special issue of the Newsletter to women in the geosciences and the geo-related engineering disciplines. Since we have received a lot of support for the special issue we have decided to expand it into two parts. All articles in both issues are written about and/or by women.

Enjoy your reading! Urša Kanjir, SC Chair

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Let's Come Together to Make The World Smaller and Smaller, While Enlarging and Powering Our Student Consortium Network!!

JOIN US!!!

Interview by Ayda Aktaş

Prof. Dr. Filiz Sunar

Prof. Dr. Filiz Sunar, president of the <u>ISPRS Technical Commission VII</u>, works as a lecturer in the <u>Geomatics department</u> at the Faculty of Civil Engineering of the Istanbul Technical University, Istanbul. Her current research interests are in the area of remote-sensing image processing (both optic and radar) and recognition (e.g. analysis of multi-temporal data, feature selection, classification, data fusion, change detection). Additionally, as co-director of the ITU satellite ground receiving station for six years, she is also interested in the earth observation market, ground segments, innovative earth observation methodologies and new products/services for sustainable management of natural resources (e.g. operational satellite-based oil spill and forest fire monitoring).

Could you briefly introduce your professional career path?

My professional career began as a research assistant at the Geomatics Department of the Istanbul Technical University in 1985. I completed my BSc, MSc and PhD in the Geomatics Department of the Civil Engineering Faculty, ITU in 1984, 1986 and 1991, respectively. I worked in the Photogrammetry and Remote Sensing Division of Helsinki University, Finland (March 1990 – March 1991) and Bristol University, England (November 1994 - August 1995), respectively, during my PhD and postdoctoral studies.

I became an assistant professor in 1993, an associate professor in 1996 and a full professor in 2003.

Why did you choose this profession in the first place (maybe you can tell us something more about your first steps)?

Frankly, I had dreamt of being an architect ever since my father worked as a professor in the Faculty of Architecture at ITU. Since he was so creative and a good architect, his talents and ideas influenced me very much. However, in the nationwide University Entrance Exam, which every student needs to take to enter a university in Turkey, I won admission to the Geomatics Department instead of the Faculty of Architecture. I was not sad, since I knew that I would be successful in the Geomatics field as well. After graduating as first in my class, I followed my father's footsteps and started to do my academic career in 1985.

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What advices would you give to students and young professionals regarding a successful career?

I believe that hard work, learning from failure, confidence and persistence bring success. Setting high goals for yourself, being kind and honest with others, and challenging yourself on the job also will help you to have a successful career. As a last piece of advice, once you graduate, never stop learning, and create a wide personal and professional network of contacts -- in Geomatics engineering and outside the field.

How do you see the role of the Student Consortium in the ISPRS organization?

As all we know, the Student Consortium is an important link between students and ISPRS professional activities, providing a good platform for cultural and information exchange. Therefore I certainly think that youth oriented events and activities should be supported and encouraged at all events of the main or-

ganization. For example, we are organizing a half day training course on Radar/Lidar in the <u>TC</u> <u>VII mid-term 2014 symposium</u> to be held in ITU, Istanbul between 29th Sept.-2nd Oct.

What has been your experience as a woman in Remote Sensing and Geoinformatics?

Although it is well known that women are more disadvantaged than men in all societies, I personally have not come across any gender inequality problem in my career and know that women in my country have enjoyed particular success in particular disiplines such as Geomatics engineering. Despite this, in Turkey, the very traditional structure of society and the resulting conservative mindset cause gender inequality in many other fields, especially in rural areas. Even so, as new and emerging fields offering important tools for managing our daily activities, I think we need to foster more women's participation in the Remote Sensing and Geoinformatics field and strengthen collaboration among female scientists by providing workshops, seminars and other opportunities for networking.





Woman in Science and Engineering

by PhD student Ana Djuricic, Department of Geodesy and Geoinformation, Vienna University of Technology



The subject of my article is a different kind of personal experiences during the last six years of my active participation in geosciences through studies, various international programs, courses and internships. I would like to describe 'personal experiences'

and 'real situations' related to this theme, in order to give younger researchers some perspective on how things are going. Maybe you will also find some tips, practical advices and arguments for why you should or should not start research or a career in the geosciences or the geo-related engineering disciplines where historically there are low numbers of women.

To begin with, I will make an example of the present number of female geoscientists in my generation (2007-2012) of Geodesy and Geoinformatics students in the Serbian Faculty of Civil Engineering, University of Belgrade. Women completed 38% of the Bachelor's degress, 32% of the Masters degrees, and 20% started their research for the PhD degree in the 2013 academic year. The proportion of male and female undergraduate, graduate and postgraduate students is similar in other countries where I had the opportunity to gain

international experience through educational programs - in Brazil (IAESTE), Germany (DAAD), Austria (OeAD), Italy (BEST), Spain (BEST), Portugal (BEST). I could see sometimes only one woman working in the research group of departments I've visited. It seems that women's choices to attain postgraduate geosciences degrees decrease as they move through PhD programs, or that



their chances to get positions in research are less than for men. Certainly, there are many reasons that can be discussed or mentioned as cause, but I prefer not to enumerate them now. Instead I will talk more about the beauty of those minority women in geoscience, of which, after all, I am one.

I am currently working as a PhD researcher in the Department of Geodesy and Geoinformation, Vienna University of Technology. My research is related to the scientific project "Smart Geology for the World's Largest Fossil Oyster Reef". The project is carried out in cooperation with the Natural History Museum of Vienna (NHM) and Vienna University of Technology. Previously, I was a guest researcher at then Institute of Photogrammetry and Remote Sensing, Karlsruhe Institute of Technology in Germany. So far, I have gained knowledge particularly in the field of laser scanning. I have traveled a lot last in the three years in order to get international experience. I have learned that I should publish and publish. I have been to various programs, courses and internships. That was the best time in my life. These kinds of activities are very important for all young students. It is an investment in our future, which gives us many opportunities, contacts, multicultural experience and an open mind. Nowadays, many student programs exist to give opportunities to young people

> to improve themselves in their careers. As a graduate engineer and PhD student, I see in the geosciences and engineering many ways to make progress in scientific research that can be very significant for the future professional goals of every enthusiastic young woman ready to make progress and new discoveries in the domain of technology and invention.

> In my personal case, I can surely

say that I have always found open doors and the good luck to be given positions at Universities as a "feminine" engineer. I have never been faced with negative perceptions regarding female engineers.

Last year I got the more than fantastic chance to work in Vienna, with the program OeAD. Four months at the Institute of Photogrammetry and Remote Sensing (IPF -GEO) were a great pleasure for me and an opportunity to work with researchers and professors who inspired me to become interested in scientific research. It is a memorable experience due to research which helped me to gain knowledge about new fields and to have significant results.

After coming back from Austria to my home country, I had a desire to connect more with students and experts from abroad to exchange experience, knowledge and discussions. Seeing DAAD program offer of funding of a short research stay in Germany for a young scientist, I got a great desire to apply and dedicate my time to do scientific research in one of the largest and most prestigious research and education institutions in Ger-

many, Karlsruhe Institute of Technology. In addition, I started to learn the German language, because I was surrounded by native German speakers and that reason is more than enough for motivation.

I decided to challenge myself by setting several main goals. One of these goals was to continue my education by enrolling in doctoral stud-



ies and using all of my qualities in order to succeed in my professional development. I wanted to learn more about how to contribute to the scientific work and create progress investigat-"Ana's inspirational woman scientist: Mileva Einstein-Marić"

ing the abilities of new technologies in order to

follow the modern era of 3D visualization. At this point, I realized how important it is to provide a cost-effective way to get the most out of 3D visualization in order for it to contribute to particular cases and be flexible in multidisciplinary approaches.

In addition to my academic education, I have devoted five years of my life to sport activism in karate and athletics, running 400 m and competing in tournaments. I have gained a lot of experience while traveling and competing. My strong personality has been built by hard work, discipline, and interaction with good and successful people. I learned what it is like when you win and when you lose, and how to stay motivated and never give up. All I want is to use it in an appropriate way while building my academic career as well.

My characteristics describe me as a person who has extraordinary ambition, determination and awareness of details; therefore, I can say that I am reasonable, tolerant, consistent and responsible. Throughout my education, I have dedicated my free time to volunteering and participating in various programs where I always tried to express creative ideas and belief in myself and the people around me. And of course, I was aware of the obligations that I wanted to take and of the need to finish them with good quality and in the best way. I want to give my contribution to the community, and to help in any way with student work, mobility, promotion and improvement of education in Serbia. Because of these reasons, I was for a long time a member of the Student Parliament of the Faculty of Civil Engineering and so far, we have been entrusted with a number of activities and involvements.

I always wanted to help others, in the past, as a student representative and, in the future, in career terms.

My colleagues say of me that I am very good at teaching and helping others. I am a patient person who knows how to explain complicated issues in a simple way. My teachers believe that I am an organized student, highly motivated to study, with great enthusiasm and dedication. I like to believe that they are right.

> I am aware of the fact that graduation is not the end of my studies; hence I want to continue to learn, discover and develop myself in the future. Today we live in a world where

all nations work together to achieve common goals, so apart from university education, communication skills and languages are essential, not just for engineers, but for everyone.

Considering everything enclosed above, I honestly believe you may find me to be one type of the profile which describes young women in science and engineering.



We are not Alone!

Networking is important! Become a member of some organization or community which is dedicated to promoting women engineers and scientists.

During my Master's studies, I was the only woman in Geoinformatics. This counted as great advantage from which I could benefit as a woman. I need to admit that I enjoyed the company of male colleagues very much since they were first of all gentlemen, careful and very helpful during my time of need. Since I become a member of ESWN (Earth Science Women's Network) in 2013, I found out that this is common in other research groups in the world. Therefore, I was maybe alone at my research group but not in general in the geoscientific community. ESWN is just one example of an organization dedicated to career development and community for women in the geosciences, where I had the opportunity to meet in person, talk to and exchange contacts with other women in geoscience and engineering. That kind of networking helped me to see some other perspectives and to hear more about concrete problem solving situations from senior female researchers. Also, ESWN provided great inspiration and motivation to continue with my hard work and planning ambitious goals. Thanks to these organizations, you can ask all kinds of sensitive questions through online discussions and specific thematic groups. Themes go from trivial, such as how to dress up for upcoming conference, where to go to toilet during fieldwork, to subjects such as how to develop a career, how others do science, where and how to apply for the research grants, how to improve leadership skills, and changing your surname after marriage.

Multitasking Time-management is important! Be effective!

Being a doctoral student means experiencing much more autonomy than in many other fields of activity. This however, requires high levels of self-organization. Women are well-known to be naturally better at multitasking than men. Use that skill daily, especially in effective and healthy self-management of your individual working behavior. Please note which topics you should focus on during your career and life in order to achieve all of your goals. Some suggestions are in following list:

- Work-Life-Balance: Which goals and activities in the various areas of life are important to me? What do I want to spend my time on?
- Time-management techniques: Set up a project plan. Distribute tasks over the week and avoid time pressure.
- Motivation: Bring yourself to goal-oriented action. Try to realize your plans in practice.
- Resources: Ask yourself: what are I my sources of strength? Get support from your university or your private surrounding professors, academic assistants, colleagues, friends or relatives. Make yourself feel worthy.
- Write a to do list and keep your eye on it.
- Delegate tasks if you can or share work with colleagues sometimes. Teamwork can usually be a lot of fun and pleasure!
- Not everybody can do it all at once, but congratulations to those who are able to manage research, having kids and keeping the house always clean!

Society

Society needs to help women to find their voice and to be visible. This can depend sometimes on cultural impact and religion orientation, but in general female students often need explicit encouragement, and providing it may suffice to overcome some barriers. For example, here are some observations: how do you behave as a student when you are in another country during an international program abroad? Being a student in different places is very interesting; you learn a lot from others and they benefit from your visit too, but usually it is challenging and sometimes very difficult. Not everyone is self-confident and not everyone can do it. This could be improved by professional development training, such as workshops offered by experts, psychological coaches, sharing experiences with other young students, and personal experiences.

Scientific societies should encourage women to attend conferences more and motivate them to publish. Invitations to give a talk were often in my case very significant and motivating for a project. I worked hard and I did more investigations of the topic and made careful preparations for a speech.

If you are following a career, it will be always difficult. Follow your heart and intuition. If you believe that you are doing good science, you should not give up; use your best talents to innovate for the benefit of humanity and make a contribution to science. If you believe in some progress, take important steps and go for it. Usually our interests have shifted to fields in which we feel more confident. Additionally, we need to like what we are doing and never lose curiosity. Many girls from my genera-



tion were very good in math but they didn't love it. Therefore, unless you are good in something, you need to love doing it as well in order to achieve successful results in certain fields of your occupation. Think about who inspires you. That can help sometimes. More importantly, whom are you inspiring? Many factors might influence a girl or young woman's decision to pursue a particular career path. Very often, the decision may be the impact of parents and their ambitions.

You don't know how to say NO?



Please note, try to keep your research under your control whenever is possible. I believe that writing a paper and finishing two more tasks at the same time can be very stressful; plus if your supervisor is asking you to do some more additional work, than you will be really under pressure. Don't be afraid to say no if you estimate that you can not handle a job that is given to you. Here are some real situations and practical possible reactions:

 Try to postpone it if it is not urgent work. You can say for example: "I cannot work this weekend, I can work another/ next weekend.", or

• In another situation, you don't need to say WHY, just say:"I need to leave at 7 pm!"

• In addition, it is very important not to use tears. Women in science use tears, but men in science don't!

• Humor helps in many cases to keep balance. Women know how to balance more than men.

• Further, if you are an attractive young person, and your supervisor/boss is a male person, do not let yourself to be close. Keep a professional and respectful distance. However, don't be so serious, keep always balance.

• Moreover, do not let yourself be intimidated. You can always say: "I am not sure about the answer right now, but I can give you a proper answer tomorrow or some another day." In this case, you will have time to think about it more, analyze question, and prepare a better answer for the next meeting.

• If you don't know something or you forgot some theory, formula or algorithm, don't hide; instead, ask for support: "I am looking for your help concerning How can I learn that? Thank you." You are not born learned. It can happen to anyone that she hasn't heard something about it before

• Ask for feedback in order to improve your results next time. Criticism is good.

Benefits

• Always up-to-date on the newest high-tech innovations.

- Research opportunities abroad and particular facilities at the host institution (e.g. library, laboratory, working with interesting instruments).
- Since most geoscientific projects or their fieldworks are worldwide, you will benefit from making contacts with international academics.
- Improvement of career prospects.
- Work in team.
- Being outdoors and taking wonderful photos of nature.
- Wearing comfortable sport clothes and being without make up.
- Nowadays, application written by a woman has a higher chance to be selected and accepted, because of the proportion in statistics.
- At the conferences, many male participants are around poster presentations by a woman.
- Female scientists are usually very communicative, social and charismatic, therefore, promotion of research will be guaranteed to be visible.

Difficulties

- Research work sometimes takes more time and resources than expected.
- Material may not always be available.
- Language difficulties.
- It is necessary to be brave and to be different.
- Sometimes, seniors don't take seriously the ideas of young female researchers.
- Good physical condition is needed due to the challenging nature of terrain or carrying of equipment.
- Working at night or in very cold places.
- Walking long distances uphill through mud at fieldwork in order to set instrument on the right location for taking measurements.
- Processing results after fieldwork takes a long time.

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I am a graduate of an Aeronautics and Astronautics Engineering program. After doing my undergraduate thesis on virtual micro-satellite design, I completed a master's degree on information technologies. My Msc thesis was about GIS systems. I

liked the idea of simulating the world virtually, working on scenarios, playing with the scaled down world. My PhD thesis was on designing a processed-based system for an agricultural remote sensing application. I used object-based image processing techniques.

Aside from the scientific pleasure I get, satellite images have always fascinated me in every step of image processing (raw data, corrected, enhanced and classified images). In addition to the strong interest I have in science, I have always been interested in art. My journey began with my PhD.: As Napoleon Bonaparte said, "A picture is worth a thousand words". I felt it for feel the same regarding satellite images and decided to spend the rest of my life studying remote sensing. I have begun working for the Center for Satellite Communications and Remote Sensing (CSCRS), a research center and satellite ground receiving station at Istanbul Technical University in Turkey.

Remote sensing inspires me because it is a way of looking that shows much more than the view. Sensors give us an additional sense, that of being able to use a wider portion of the electromagnetic spectrum. Earth is thus more colorful, and RS techniques and image processing tools seem to be there just to bring out the hidden secrets written on the earth's surface! I am sure that most of my colleagues are already aware of the The Art(istic) Side of Remote Sensing

by Dr. Damla Uça Avcı, Istanbul Technical University

opportunity to look at this art with pleasure everyday within their work. I may be just a little more lucky by virtue of working in a ground receiving station since we see many more earth images other than we use in our projects. The CSCRS receiving station is both an academic and a commercial institution. My colleagues and I are academic staff of the university, conducting national and international RS projects. At the same time, we are working as operators responsible for data acquisition and processing, and we are in touch with our customers.

Even though many of the images acquired are not processed or evaluated, they are all recorded. Indeed, archiving is one of the most important activities that a satellite ground receiving station has to perform. "A picture is a fact," said Ludwig Wittgenstein. I feel that all the satellite images in the archive are very valuable since each of them consists of many facts. A dataset has its story both for today and for the future. A frame can be processed several times by various algorithms to get different kinds of valuable information on several subjects. As Aaron Siskind said of photography, "What has been caught is captured forever". It will always be a record of the moment it was captured. Combining the moments, investigating the relationships is exciting. With multi-temporal datasets, change can be detected and measured. Used as complementary data by many branches of science, remote sensing may explain the meaning, the cause, the result and relationships better than many traditional applications.

A Yann Arthus-Bertrand quote summarises the duty of sensors well - "The Earth is Art, The Photographer is only a Witness". Our witnesses in space share what they see. Before the material reaches the analyst, the witness shares it with a ground receiving station operator. The most magical moments of the station are the minutes of real-time acquisitions. Even though real-time projects can be stressful, watching the passes of the satellite is amusing. Quick observations of the earth flow in a moving window display, while tracking the satellite path on a map is exciting.

After data preparation it is time for the analysts. The required images are extracted and prepared for processing. Analysts track the signatures of objects, enhance the linearities, transform the image space, classify the surface types, try to catch the correlations, etc. There is no doubt that image processing is a scientific activity, but the object to which we apply our operations is so artistic, isn't it? Satellite views really seem like paintings.

Since I see satellite imagery as art, I collect great images from calendars and brochures. I smile when I saw someone trying to find her location in a scene, and I remember Thomas Merton's saying, "Art enables us to find ourselves and lose ourselves at the same time". Here I wanted to share the artistic side of RS, which is in the shadow, but indeed shines for all of us. Do not forget that there is always art in science and science in art. "The works of Van Gogh have a pattern of light and dark that closely follows the mathematical structure of turbulent flow", as physicists José Luis Aragón and Gerardo Naumis examined on the patterns of remarked concerning the painting Starry Night. What about the reverse? I wish you a delightful discovery of the art in your science!!

Please feel free to send me satellite images ;)

PAST EVENTS REPORTS

Report on Student Activities at the 34th Asian Conference on Remote Sensing and the 9th ISPRS Student Consortium & WG VI/ 5 Summer School by Chao-Yuan Lo



In 2013, two important events took place in Bali, Indonesia, the 34th Asian Conference on Remote Sensing (ACRS 2013), and the 9th ISPRS Student Consortium (ISPRS-SC) & WG VI/ 5 Summer School. Both of these two events successfully provided effective opportunities for students and young scientists to exchange knowledge and establish social networks.

During October 20-24, Indonesian Society for Remote Sensing (ISRS/MAPIN) and Asian Association on Remote Sensing (AARS) organized the ACRS 2013 at the Discovery Karthika Plaza Hotel. A one day programme consisting of "The Third Web Contest (WEBCON3)", "White Elephant", "Student Session", and "Student Night" was held specifically for students. The WEBCON is a competition using web materials and exchange of ideas related to the geospatial sciences. There were thirteen groups and around 50 participants attending the WEBCON3 this year. The White Elephant session invited Prof. Armin Gruen, Dr. Suvit Vibulsresth, and Prof. Shunji Murai to teach the skills of thesis writing, proposal writing and presentation techniques. In addition to these technical sessions, the AARS Student Group (ASG) met to plan the general assembly of ASG and to announce updated statutes this year. The ASG also invited Asian delegates to publicize student activities

and researches in their universities at a poster session. There were eighteen presenters attending this event, including students from nine different countries, ASG, and ISPRS-SC. At the Student Night, the local organizers arranged a pool-side party for seventy participants. This event allowed participating students and young scientists from different countries and regions to build up relationships with each other. This one-day program translated knowledge and connected students efficiently.

This year, Geospatial Information Agency (GIA), ISRS/ MAPIN, Udayana University, and ISPRS-SC collaborated to organize the 9th ISPRS-SC Summer School at the Werdhapura Sanur, Bali, Indonesia October 25-30, 2013. The ISPRS-SC Summer School consisted of several technical lectures and social activities presented over five days. Fifty-four participants from thirteen countries to joined this summer school. The given lectures covered remote sensing, disaster management, land cover monitoring, marine habitat monitoring, introduction of technologies in Indonesia, LIDAR (Light Detection and Ranging) processing, and geo-data analyses. Besides lectures, the organizers also took participants to visit the Kintamani volcano and surrounding local villages in order to show them the unique natural



environment and local culture of the island of Bali. A social networking event at the beach gave all participants the chance to exchange tlearning experience and find cooperation opportunities. Based on the outcomes of these activities, the 9th ISPRS-SC Summer School succeeded in its objectives of disseminating knowledge to the younger generation.



Demostration of WEBCON3



WEBCON3 awarding

In Memoriam: Kim Tilley

Kim Tilley, the Associate Executive Director and the Director of Communications for the American Society of Photogrammetry and Remote Sensing (ASPRS) passed away unexpectedly on December 27, 2013. Among her many duties and contributions to the society, she also initiated and supervised the ASPRS Student Advisory Council (SAC) and Young Professionals Council (YPC). Kim was an ASPRS icon in the eyes of the student members. This is how some of the students and young professionals remember her:

Kim was a mentor, adviser, and friend. Her dedication to improving the ASPRS student experience was an inspiration to all those who had the opportunity to work with her. For Kim, it wasn't just about work, school, or professional obligations. She wanted to know how your family was doing. She loved asking me about my son and what he had learned since the last conference or what he was chattering about during our teleconference calls. She'll be deeply missed. My sincere condolences to her family.

I first met Kim over five years ago. I had the opportunity to see her in person at the ASPRS annual conference every year, and I also had the chance to interact with her during the SAC monthly teleconferences over the course of two years. Many memories of her flooded my mind since I received the notice of her passing, but there are three in particular that stand out. Once I made a serious mistake while volunteering. Kim made sure I learned my lesson, but after that she treated me as if the incident never happened. I admired how graciously she handled the situation. The second memory was made when I needed an urgent letter of recommendation. I had forgotten that Kim was away on a conference, and contacted her about it. She produced an excellent letter within an hour despite manning a booth at the same time. My other favourite memory was when I would point out to Kim famous professors whose books and articles I had read. She would simply walk me over to them and introduce me. "They are just people like you and me" she would say.

I remember how excited I was to attend ASPRS webinars with Kim moderating. The same excitement was true for working with YPC, when I realized Kim hosted the calls! It was always a pleasure to work with her and her responses were well articulated and insightful. She kept us motivated while simultaneously making sure that our goals were focused and achievable. Once I became the YPC liaison to SAC, I became more aware of how much she did to enable the student efforts. Just like the YPC, students relied on her for many things. It became my personal mission to try to shorten her task list. I don't think I came close to accomplishing my goal, though, because I really don't know what we are going to do without her. I cannot express how much I miss her, and I know the first conference call I have without her will be the hardest.

Kim had a genuine love of the society and natural enthusiasm that helped me and others get involved and participate. She was incredibly supportive and encouraging to the students and young professionals, not only verbally, but also through her handson approach to these groups. Our group, the young professionals council, relied heavily on her guidance, knowledge and support to help us develop and implement our goals. Even before this loss, we recognized her tireless efforts to support us and to make the society more appealing to young members. Kim had entrusted us with leadership roles, and taking ownership of those roles. Continuing to move the young professional/student efforts of ASPRS forward is the best tribute we can give to this great person that will be missed dearly.



Kim Tilley (second from right) at an ASPRS conference with some of her student volunteers

MEMORIAL ARTICLE

Kim was a tireless advocate for ASPRS, particularly its student members. In my interaction with Kim, it was readily apparent that her passion and dedication to enhancing student involvement in the organization was second to none. She always volunteered her time and ideas to help students, and ultimately ASPRS, grow. She will certainly be missed by many.

Kim had a genuine interest in making ASPRS useful for all its membership. However, the SAC and YPC groups were particularly special to her, as seen by her sustained efforts to provide additional support to students and younger members. She recognized that a thriving SAC and YPC group was critical to ensure that the membership grows organically from students, to associate members, and to full members. One of her most important achievements from a student perspective included the initiation and stewardship of the student assistantship program, which is particularly critical for new student members to feel connected with their peers and engaged with the activities of the society. She also initiated, supported, and/or coordinated many SAC activities such as the GeoLeague competition, the SAC blog, and the activities during conferences such as the employer meet-and-greet sessions, the exhibit hall tour, and the highly popular speed networking session. The YPC group also benefitted greatly from her vision of creating mentoring forums, the YPC newsletter, and other communication media such as websites and blogs. Just weeks before her passing away, she held a teleconference to discuss the possibilities for further engaging of young members in the ASPRS activities.

"Happy holidays" were the last words Kim said to the Student Advisory Council (SAC) during our last meeting, a week before her passing. As a supporter for nurturing our young professionals, she made every effort to make us more effective in our service to the society while growing our network of professional friends for the rest of our lives. She loved ASPRS and the love she had for the society was infectious. It was very easy to look at her service to ASPRS and learn to be committed as she was. She had a heart to accept and add value to any student that encountered her. Personally, the first time I talked with Kim was on the phone. She sounded very youthful and energetic and her voice was so gentle and professional that I relished getting to meet her face to face. When I met her, I said to her "Oh my! Nice to finally meet you; you sounded very gentle and energetic in our chat". Her response was even more jovial "Hahahaha, so you were expecting a hot young blonde?". Everyone around us who heard her laughed. Many more entertaining situations followed as she was blessed with a very good sense of humour. She always had a way of making seemingly difficult situations light. Years followed and her direction on how to grow into a more fulfilling career in the spatial technologies has always proven to be worthwhile. She never minded going over the items many times until you finally got it. It is such a loss to be without her. My prayers and heartfelt wishes go to her family (including ASPRS). May she rest in peace.

Kim always went out of her way to make students and young professionals feel like they were the future of the society. She was cognizant that the society needed to continue its growth, and made efforts to create the Student Advisory Council, Young Professionals Council, student assistantships, mentoring programs and encouraging us all to become certified and network with the established society membership. I had the ability to work closely with Kim as a member of both the SAC and YPC, and her encouragement and support always kept me focused and determined to make the most of my membership with ASPRS, and to give back as much as I received. Kim was a wonderful employee, mentor, and friend, and her contributions to the society will always be remembered.

I felt unreal for the first-ever SAC meeting without Kim's voice. Most of the student-oriented programs could not even happen without Kim's selfless devotion. When I drafted the GoLeague Challenge, Kim keenly searched for the judge committee, tirelessly helped revise the announcement, and promptly advertised the Challenge to all the student members. When I interned in the D.C. area during the past summer, she invited me to Bethesda to show me the picturesque ASPRS headquarters. When I hosted the SAC meeting in San Antonio, I was very nervous. Kim smiled at me, encouraged me and backed me up through the entire session. These scenes haunted my mind after I was shocked by the sad news. It is a huge loss for ASPRS and the students. In our hearts she shall be cherished. In our prayers she shall be uttered. My condolences to Kim's family.

Although there are many other lives that have been touched by Kim Tilley, these short vignettes illustrate not only how committed Kim was to her ASPRS and related duties, but also to the students she came in contact with. If you would like to share a fond memory of Kim or express your condolences, the family's online obituary guestbook can be found at: <u>http://www.dignitymemorial.com</u>.

INTERESTING LINKS

FUTURE ISPRS RELATED EVENTS

RESOURCES PortableMaps.com http://www.portablemaps.com/

EDUCATION Open Courses from the Geography Department with several for GIS (Penn State) http://open.ems.psu.edu/courseware

FREE SOFTWARE QGIS 2 http://qgis.org/en/site/forusers/download.html

GeoTools 8.0 http://sourceforge.net/projects/geotools/

JOBS, CAREER OPPORTUNITIES SCGIS Jobs http://www.scgis.org/Lev3Page.aspx?Page3ID=20

eBOOK

Land Administration for Sustainable Development e-Book http://www.esri.com/landing-pages/industries/land-administration/ebook#sthash.621ywy57.dpbs

RELATED ORGANIZATIONS, ASSOCIATIONS International Council for Science — ICSU http://www.icsu.org/

JOURNALS Earth's Future http://earthsfuture.agu.org

TUTORIALS Visual 3D Modeling from Images http://www.cs.unc.edu/~marc/tutorial/

The Remote Sensing Core Curriculum http://userpages.umbc.edu/~tbenja1/umbc7/ Wavelength Conference 2014 Malvern, Worcestershire, United Kingdom, 14-16 April 2014 For more info visit: <u>http://www.rspsoc-wavelength.org.uk/</u>

Split remote sensing summer school 2014 (SplitRS 2014) Split, Croatia, 22-23 May 2014 For more info visit: <u>http://splitremotesensing.com/</u>

11th ISPRS SC WG VI/5 Summer School & 2014 GeoInformatics Summer Camp Wuhan, China, 22-28 May 2014 For more info visit: www.lmars.whu.edu.cn/isprscom6/summercamp.html

ISPRS Technical Commission V Symposium Riva, Italy, 23-25 June 2014 For more info visit: <u>http://isprs-commission5.fbk.eu/</u>

6th International Summer School on Radar SAR Bonn, Germany, 4-11 July 2014 For more info visit: <u>radarsummerschool.fraunhofer.de/summerschool/</u>

3rd International Workshop on Earth Observation and Remote Sensing Applications (EORSA 2014) Changsha, China, 11-14 June 2014 For more info visit: <u>http://www.eorsa2014.org/</u>

ISPRS Technical Commission III Symposium & Photogrammetric Computer Vision (PCV 2014) Zurich, Switzerland, 5-7 September 2014 For more info visit: <u>http://www.isprs.org/pcv2014/</u>

Workshop of Photogrammetry, Remote Sensing and Laser Scanning Telč, Czech Republic, 3-5 November 2014 For more info visit: <u>http://lfgm.fsv.cvut.cz/?cap=&zal=408&lang=en</u>