



## TIME TABLE - GRSS YOUNG PROFESSIONALS

Young Professionals - Day 1		
<b>Monday 26</b>	8:30 - 9:00	Registration
	9:00 - 9:30	Opening
	9:30 - 10:00	Coffee Break
	10:00 - 11:00	<b>Creating standard-compliant spatial data repository of desired quality</b> Speaker: <b>Ivana Ivanova</b> UNESP
	11:00 - 12:00	<b>Drones e suas inovações tecnológicas: aplicações, cases e tendências</b> Speaker: <b>Luiz Fernando Dalbello</b> Santiago & Cintra
	12:00 - 13:45	Lunch
	13:45 - 14:45	<b>Geointeligência embarcada em Sistemas de Aeronaves Remotamente Pilotadas</b> Speaker: <b>Nina Machado Figueira</b> Exército Brasileiro
	14:45 - 15:45	<b>Uso de VANTs em aplicações de sensoriamento remoto</b> Speaker: <b>Leila Fonseca</b> INPE
	15:45 - 16:15	Coffee Break
	16:15 - 17:15	<b>Exercício Profissional</b> Representante do CREA-SP

Young Professionals - Day 2		
<b>Tuesday 27</b>	8:30 - 9:30	<b>O sistema VANT SIMEPAR e suas aplicações nas engenharias</b> Speaker: <b>Edson Aparecido Mitishita</b> UFPR
	9:30 - 10:00	Coffee Break
	10:00 - 11:00	<b>Experiência da SensorMap em projetos de P&amp;D e no desenvolvimento de soluções em Geotecnologia</b> Speaker: <b>Roberto da Silva Ruy</b> SensorMap/Engemap
	11:00 - 12:00	<b>Experiência da Embrapa no uso de VANTs para agricultura</b> Speaker: <b>Lúcio André de Castro Jorge</b> Embrapa - São Carlos
	12:00 - 13:45	Lunch
	13:45 - 14:45	<b>What should I write and publish?</b> Speaker: <b>Paolo Gamba</b> University of Pavia
	14:45 - 15:45	<b>Inovação, Produtividade e Desenvolvimento Econômico, reflexões sobre potencialidades e vulnerabilidades no Brasil</b> Speaker: <b>Pedricto Rocha Filho</b> PUC – RIO
	15:45 - 16:15	Coffee Break
	16:15 - 17:15	<b>Inovação, tecnologia e empreendedorismo – Resultados obtidos em 13 anos de INTEPP</b> Speaker: <b>Luis Horácio Ramos Isique, José Augusto Fabri</b> (co-author) INTEPP UTFPR



## TIME TABLE – ISPRS SUMMER SCHOOL

Summer School - Day 1		
<b>Wednesday 28</b>	8:30 - 9:00	Opening - Agenda
	9:00 - 10:15	<b>Michael Cramer</b>
	10:15 - 10:45	Coffee break
	10:45 - 12:00	<b>Eija Honkavaara</b>
	12:00 - 13:45	Lunch
	13:45 - 15:00	<b>Michael Cramer</b>
	15:00 - 16:15	<b>Teemu Hakala</b>
	16:15 - 16:45	Coffee break and Poster Session
	16:45 - 17:30	Demo (Weather dependent)

Summer School - Day 2			
<b>Thursday 29</b>	8:30 - 9:00	Demo results (UNESP Team)	
	9:00 - 10:15	<b>Michael Cramer</b>	
	10:15 - 10:45	Coffee break	
	10:45 - 12:00	<b>Eija Honkavaara</b>	
	12:00 - 13:45	Lunch	
	13:45 - 14:45	<b>Teemu Hakala</b>	
	14:45 - 15:45	<b>Eija Honkavaara</b>	
	15:45 - 16:15	Coffee break	
	16:15 - 16:45	<b>Antônio M. G. Tommaselli</b>	
	16:45 - 17:45	<b>Workshop: I - UAV_4D_Bio</b>	
		Overview <b>Antônio M. G. Tommaselli</b>	
		Orientation of UAV images <b>Adilson Berveglieri</b>	
Calibration of a Hyperspectral camera <b>Raquel Alves de Oliveira</b>			
19:30 - 23:30	Dinner		



## TIME TABLE – ISPRS SUMMER SCHOOL

Summer School - Day 3			
<b>Friday 30</b>	9:00 - 10:15	<b>Michael Cramer</b>	
	10:15 - 10:45	Coffee break	
	10:45 - 12:00	<b>Eija Honkavaara</b>	
	12:00 - 13:45	Lunch	
	13:45 - 14:15	<b>Michael Cramer</b>	
	14:15 - 15:15	<b>Michael Cramer</b>	
	15:15 - 15:45	<b>Eija Honkavaara</b>	
	15:45 - 16:15	Coffee break	
	16:15 - 17:15	<b>Workshop: II - UAV_4D_Bio</b>	
		DSM generation of forest areas <b>Raquel Alves de Oliveira</b>	
Spectral library of tropical forest species based on hyperspectral images <b>Gabriela Takahashi Miyoshi</b>			
17:15 - 17:30	Detection of sugar cane diseases with hyperspectral images <b>Nilton Nobuhiro Imai</b>		
	Closing		

### Photogrammetry

Prof. PhD **Michael Cramer**

Basics – the main concept of sensor integration. Extended bundle adjustment – camera calibration. Direct georeferencing. Examples & Applications. Tie point extraction. New trends in sensor orientation.

### Remote Sensing using small UAVs (sUAV)

PhD **Eija Honkavaara**

Fundamentals of sUAV Remote Sensing. Data acquisition using multi- and hyperspectral cameras, thermal cameras. Radiometric sensor calibration. Radiometric image calibration. Object reflectance characteristics. Object reference measurements. Image/data classification using spectral and 3D information. Applications: precision agriculture, forest canopy analysis.

### UAV Technology

MSc **Teemu Hakala**

UAV systems: categorization, general applications. Components: autopilot, batteries, controllers, motors. Tasks: planning, operation, maintenance, legal aspects. Building remote sensing data capture systems: sensors, UAV-sensor integration, sensor synchronization. *In situ* observation systems.