

'Status and Developments in Geological Remote Sensing'

9th - 11th December 2013, Berlin, Germany

The 24th annual meeting of GRSG will cover a wide range of remote sensing themes, including:

- New sensors, technological developments, analytical methods & algorithms
- Data fusion; Bridging the divide between data and applications
- Latest developments, research and applied uses of RS for:
 - Mineral exploration
 - Oil & Gas
 - Geological applications (lithostructural mapping, tectonics and seismology)
 - Geomorphology
 - Geohazards, engineering/geotechnical and environmental/contamination
 - Terrain, bathymetry and DEM analytical techniques
 - Classification, multi-temporal analysis and modelling
- Planetary science & comparative geomorphology
- Hyperspectral & Multispectral; Radar / InSAR; optical & high resolution

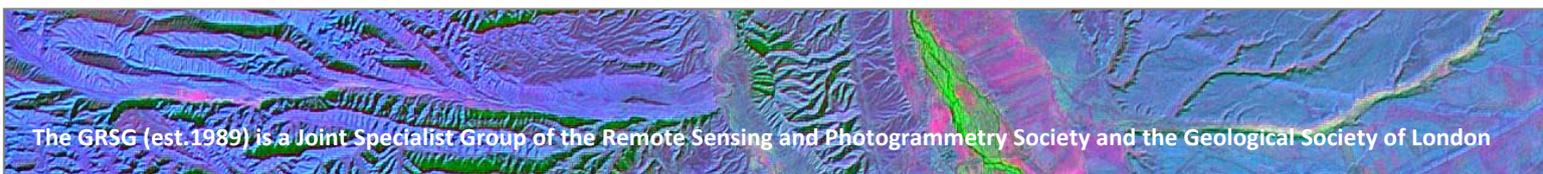
Conference Venue: Sachsen-Anhalt Landesvertretung, Luisenstrasse 18, Berlin-Mitte, 10117 Berlin

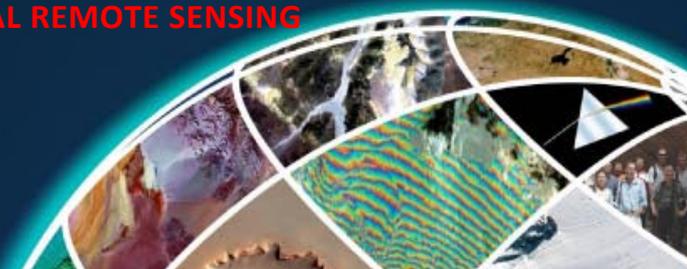
The meeting will be accompanied by a small exhibition from leading organisations and companies in the field of geological remote sensing.

Social events:

- | | | |
|-------------------------|-------------------|---------------------------------|
| • Sunday 8 Dec. 19:30 | Ice-breaker | Daimlers, Unter den Linden 14 |
| • Monday 9 Dec. 17:30 | Wine Reception | Landesvertretung Sachsen-Anhalt |
| • Tuesday 10 Dec. 19:00 | Conference Dinner | Museum für Naturkunde |

For further information, on-line registration, sponsorship opportunities and logistics see www.grsg.org.uk

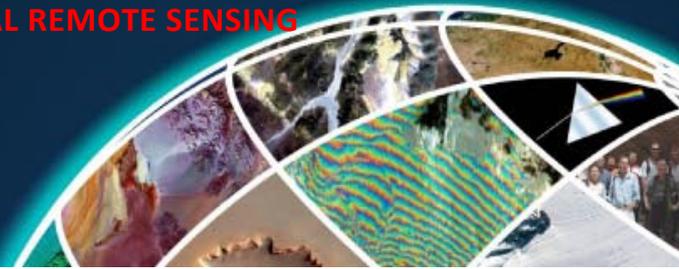




****Sunday 8 December = Ice Breaker social event 7.30pm** Rev.7: 25 Nov. 2013

Day 1 - Monday, 9 December 2013		
08:30-09:30	Registration & Coffee	
09:30	Welcome	Welcome + Introduction to the GRSG, GRSG Chairman: Jason Manning (Arup)
		Welcome by DGPF, Cornelia Glaesser (MLU)
09:40	Keynote: Spectroscopic Remote Sensing: A Tool for Resource Evaluations in Afghanistan	Trude King, USGS, Colorado, US
AM1	Mineral Exploration 1	Session Chair:
10:10	Application of airborne Hyperspectral technology for mineral target detection in Southern Africa	Alex Fortescue, Southern Mapping, South Africa
10:30	Crystallinity variations of hydrothermal smectite-illite and kaolinite minerals by using reflectance spectra in the Rodalquilar Au deposit, Spain	Adriana Guatame, TU Delft, Netherlands & University of Twente, NL
10:50	Mineral Deposit Characterization from Airborne and Spaceborne Imaging Spectroscopy Data, Geological Application Examples to the EnMAP Mission	Christian Mielke, GFZ Potsdam, Germany
11:10-11:40	Coffee Break 1	
AM2	Geological Mapping 1	
11:40	Lithological mapping using spectral remote sensing: a global feasibility study	Stephen Grebby, British Geological Survey (BGS), UK
12:00	Utilisation of the Cosmo-Skymed Constellation for geologic monitoring applications	Robert Siegmund, GAF AG, Germany
12:20	Close range hyperspectral and lidar integration products for value-added communication of geological results	Simon Buckley, Uni CIPR, Norway
12:40-13:40	Lunch	
PM1	Oil & Gas	
13:40	Close range hyperspectral imaging applied to coal mining: a feasibility study.	Tobias Kurz, Uni CIPR, Norway
14:00	Spectral imaging for the estimation of mineral/petrophysical properties of shale gas drill core	Benoit Rivard, University of Alberta, Canada
14:20	WorldDEM – Supporting the Upstream Oil and Gas Project Lifecycle	Michael Hall, Astrium, UK
14:40	Mapping of Geologic Substrates Impregnated With Liquid Hydrocarbons Using Proximal and Airborne Hyperspectral Remote Sensing	Carlos Souza Filho, Uni Campinas, Brazil
15:00-15:30	Coffee Break 2	
PM2	Geohazards and Environment 1	
15:30	Defeating Oil Piracy Using Remotely Sensed Imagery and GIS: The Emergent Synthesis Approach	Sean Anklam, SpecTIR, Reno NV
15:50	Hyperspectral surveying for the identification and mapping of asbestos mine waste in South Africa	Henk Coetzee, Council for Geoscience of South Africa, SA
16:10	Ground Motion in UK Coal Fields; a Case Study of the South Wales Coalfield	Luke Bateson, BGS, UK
16:30	Hyperspectral analysis of materials from iron and steel production using reflectance spectroscopy in a case study in Thuringia, Germany	Michael Denk, Uni Halle, Germany
16:50	Monitoring of Earth Surface Terrain Motion with Satellite Radar interferometry	Thomas Bahr, Exelis Vis, Germany
17:10	GRSG AGM	The Geological Remote Sensing Group Annual General Meeting (AGM)
17:30	Wine Reception – sponsored by Geosense	Venue - Landesvertretung Sachsen-Anhalt

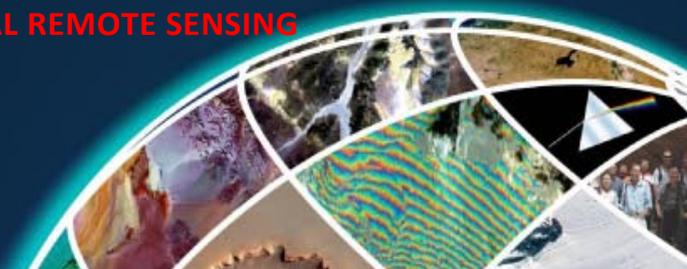




Day 2 - Tuesday, 10 December 2013

08:30	Registration & Coffee	
09:00	Welcome	Welcome + Introduction to GRSG, GRSG Chairman Jason Manning (Arup)
		Welcome by DLR (DLR)
09:10	Keynote, Morphometrics on Mars and Earth – comparative geomorphology	Ernst Hauber, Institute of Planetary Research, German Aerospace Center (DLR)
AM1	Hyperspectral	
09:40	Near-Infrared CRISM Investigations of Hydrothermally Altered Amazonian Impact Craters on Mars	Stuart Turner, University of Leicester, UK
10:00	Hyperspectral & Thermal airborne mapping system developments at ITRES	Jason Howse, ITRES, Canada
10:20	The new multi-sensor SisuROCK	Rainer Bärs, SPECIM, Finland
10:40-11:10	Coffee Break 1	
AM2	New Developments, Techniques and Sensors 1	
11:10	Beneath the Earth's cover – Connecting geophysics and remote sensing	Uwe Meyer, BGR, Germany <Invited Speaker>
11:30	The Hexagon Cloud - A Dynamic Network of Content, Software and Solutions	Oliver Zimmermann, Intergraph
11:50	RIEGL Lidar Technology for Static and Kinematic Scanning Outstanding Performance by Cutting Edge Technology	Thomas Gaisecker, RiegI, Austria
12:10	Unmanned airborne surveying: innovation and exciting developments	Marc Goossens, Geosense, Netherlands
12:30-13:30	Lunch	
PM1	DEM and Geomorphology	
13:30	Geomorphometrics - extracting landforms from DEM'S	Ian Evans, University of Durham, UK <Invited Speaker>
13:50	Using GIS for analysis of surface roughness in Sveta Magdalena paleo-landslide in the Rebrnice area, SW Slovenia	Tomislav Popit, University of Ljubljana, Slovenia
14:10	Handling of very large DEMs (ca. 1 TB) for efficient geomorphic and geologic interpretation: visualization of young glacial/periglacial phenomena in the Bodensee-Oberschwaben area (southern Germany)	Elena Beckenbach, University of Stuttgart, Germany
14:30	MACS – Modular Airborne Camera Systems for flexible photogrammetric high-resolution products	Tilman Bucher, DLR, Germany
14:50	Terrain objects for digital landslide mapping	Clemens Eisank, University of Salzburg, Austria
15:10-15:40	Coffee Break 2	
PM2	Geological Mapping 2	
15:40	Geological interpretations of landslide structures in Southern Kyrgyzstan using TerraSAR-X radar and high resolution optical remote sensing data	Hans Ulrich Wetzel, GFZ Potsdam, Germany
16:00	RapidEye Base Map and Monitoring solutions for The Energy and Mining Sectors	Andrew Pylpchuk, (presented by Scott Douglass) RapidEye AG, Germany
16:20	Preliminary results from atmospheric correction and geological mapping using airborne hyperspectral data in Antarctica	Martin Black, British Antarctic Survey (BAS), UK
16:40-17:00	Lineament analysis in northern Colombia, South America	Mauricio Baquero, Corporación Geológica ARES, (CGARES), Colombia
19:00-22:00	Reception & Conference Dinner (by reservation, payment required)	Natural History Museum (Museum für Naturkunde)

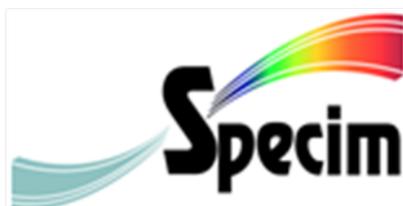




Day 3 - Wednesday, 11 December 2013

08:30-09:00	Registration & Coffee	
09:00	Welcome	Welcome + Introduction to the GRSG
09:05	Keynote, EnMap - the new hyperspectral satellite system, new strategies in hyperspectral mineral analysis	Andreas Müller German Aerospace Center (DLR-DFD)
AM1	Mineral Exploration 2	
09:35	Mapping Ni-Cu (PGE) bearing ultramafic rocks with airborne and simulated EnMAP satellite hyperspectral imagery, Nunavik, Canada	Derek Rogge, DLR, Germany
09:55	A new approach in the detection of hydrothermal mineral alterations using remote sensing data: a case study from Lake Victoria Goldfields, Tanzania	Elisante Mshiu, Uni Halle, Germany
10:15	Imaging Spectroscopy and Geochemical Analysis of two Rare Earth Elements Mineralized Intrusive Complexes (Epembe Carbonatite Complex in Northern Namibia and Tantalite Valley Pegmatites in Southern Namibia)	Nina Boesche, Potsdam, Germany
10:35	A comparison of mineral classification results from handheld and image spectroscopy against geochemistry from drill core and chip trays	Conrad Wright, Terra Core International (TCI), US
10:55-11:20	Coffee Break 1	
AM2	New Developments, Techniques and Sensors 2	
11:20	Status of TanDEM-X DEM Performance	Birgit Wessel, DLR, Germany
11:40	TerraSAR-X-based settlement detection for permanently cloud-covered areas using ENVI-SARscape	Michael Fuchs, BGR, Germany
12:00	Benefit of scale-wavelength decomposition of hyperspectral reflective signals for classification and quantification in a study of a lignite mining site	Christoph Ehrler, DLR, Germany
12:20	WorldView-3 Increases DigitalGlobe's Capabilities	Dave Benson, DigitalGlobe, Germany
12:40-13:40	Lunch	
PM1	InSAR	
13:40	Validation of TERRAFIRMA WAP terrain motion products of Greece	Athannassis Ganas, National Observatory of Athens (NOA), Greece
14:00	Realising the potential of satellite InSAR	Harry McCormack, NPA Satellite Mapping, CGG, UK
14:20	PSInSAR data and geological hazards in urban areas: the PanGeo service for Roma and Palermo	Valerio Comerchi, Geological Survey of Italy (ISPRA), Italy
14:40	Contributions of BGR to the Copernicus projects Terrafirma and PanGeo	Corinna Wolf, BGR, Germany
15:00-15:30	Coffee Break 2	
PM2	Geohazards and Environment 2	
15:30	Monitoring of Slope Stability of Tailings Dams in South Africa Using Satellite Interferometry	Michael Riedmann, Astrium
15:50	EO-based tools and methods to assess environmental and societal impacts of mining	Stephane Chevrel, BRGM, France
16:10	Earth-observed based erosion study for dam sites, Morocco	Bernd Schulte, GAF AG, Germany
16:30	Conference Wrap up	
16:45	End of Conference	
	After-glow	

2013 AGM Conference Sponsors





Additional Thanks –

GRSG committee work and meetings are organised fully by a voluntary committee. Considerable thanks are due to all committee members giving their time and effort. We thank also the various companies and organisations that committee members work for who support committee members (and organising committee) in undertaking their committee work. Without this support the GRSG meetings would not be possible. These organisations include:

- **Arup**
- **Astrium Geoinformation**
- **BGS (British Geological Survey)**
- **BGR (Federal Institute for Geosciences and Natural Resources / Bundesanstalt für Geowissenschaften und Rohstoffe)**
- **CGG NPA Satellite Mapping Ltd**
- **DLR (German Aerospace Center / Deutsches Zentrum für Luft- und Raumfahrt e.V.)**
- **Geonergy Ltd**
- **Imperial College, London**
- **Martin Luther University Halle-Wittenberg (MLU)**
- **University College London (UCL)**
- **University of Bristol**
- **University of Exeter**
- **University of Portsmouth**

Confirmed 2013 AGM Keynotes:

Spectroscopic Remote Sensing: A Tool for Resource Evaluations in Afghanistan, Trude King,
United States Geological Survey (USGS)

EnMap - the new hyperspectral satellite system, new strategies in hyperspectral mineral analysis, Andreas Mueller (DLR) & Hermann Kaufmann, Deutsches GeoForschungs
Zentrum/German Research Center for Geosciences (GFZ)

Morphometrics on Mars and Earth – comparative geomorphology, Ernst Hauber, Institute
of Planetary Research, German Aerospace Center (DLR)

For further information, Sponsorship opportunities and Logistics

see www.grsg.org.uk