

# POLAND: Institute of Geodesy and Cartography: Remote Sensing Center

<http://www.igik.edu.pl>

MONIKA TOMASZEWSKA



## Research topics:

### ➤ Calibration and Validation:

- ESA Sentinel-1 Soil Moisture Product @ Biebrza Wetlands SuperTest Site - the International Soil Moisture Network - (ISMN): heat flux and soil moisture;
  - Land Products Validation support to Proba-V, Sentinel-2
  - Joint Experiment of Crop Monitoring (JECAM) part of Group on Earth Observations
- ### ➤ Agriculture / Drought:
- Yield forecasting/estimation
  - Drought detection, Agricultural Crops, and Snow cover analysis
  - Biomass and soil moisture assessment;
  - Agriculture – water pollution

### ■ Professor Katarzyna Dabrowska-Zielinska



Head of Remote Sensing Centre

Contact details:

Tel: +48 022 329-19-74

E-mail: [katarzyna.dabrowska-zielinska@igik.edu.pl](mailto:katarzyna.dabrowska-zielinska@igik.edu.pl)

### ➤ Forests:

- GlobBiomass project: characterize and to reduce uncertainties of forest aboveground biomass
  - Forest structure and biomass assessment
  - Forest extent and structure assessment of mountainous regions
  - Monitoring of forest fires, drought events and air pollution
  - Forest dynamics and structure
  - Forest carbon stocks and carbon sequestration
  - Forest health and vitality
  - Forest management and planning
  - Forest inventory and monitoring
  - Forest carbon inventories: CLC1990, CLC2012; assessment of the 5 high resolution layers (HRLs)
- ### ➤ Others:
- Change of cloudiness over the past 30 yrs: a global analysis;
  - Effect of climatic changes on grassland growth, its water conditions and biomass;
  - Ground deformations, Fires, and Floods monitoring

### ➤ Carbon balance and Bioenergy :

- Carbon balance and its variation and trends analysis;
- Biomass potential and possibilities of energetic plants cultivation

## National activities



## International activities