

# Student Competition The EGSIEM Challenge

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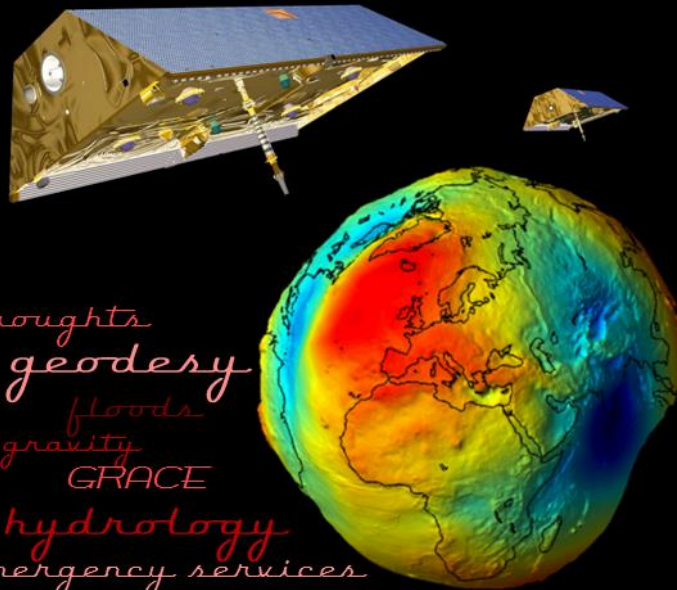
January 19th, 2016

EGSIEM Meeting, Luxembourg



EU-wide student competition  
[www.egsiem.challenge.eu](http://www.egsiem.challenge.eu)

# THE **EGSIEM** European Gravity Service for Improved Emergency Management CHALLENGE



*droughts*  
*geodesy*  
*floods*  
*gravity*  
*GRACE*  
*hydrology*  
*emergency services*

registration  
opens on  
Month X<sup>th</sup>, 2016

MAY THE GRAVITY BE WITH YOU!



# About the competition

## - The goal -



- **to educate students** in geodesy, hydrology and emergency services, with focus on EGSIEM research topics
- **to increase students' attention** about the importance of Earth observation and the data usage for monitoring and forecasting of natural hazards
- to awake students' interest, curiosity, awareness about this field, **to open their consciousness** in this research area
- to provide students with may be **their first research opportunity** in terms of the EGSIEM summer school or a research internship

# About the competition

## - Target group -



### Target group

- university students, both undergraduates and graduates (BSc + MSc)
- focus on students studying geodesy and/or hydrology study programs, but others are welcomed as well
- age 19-28
- residents of EU countries or CH
- as the students will come from different backgrounds and also from different semesters (1.-10. semester), the difficulty must be appropriate ... the goal is open their consciousness, not to test their technical skills in difficult computation tasks!!!



# About the competition

## - What should the students learn -



- GRACE
  - Fundamentals about the satellite mission; Measurement principle; Measurement accuracy; Meaning of the gravity data; GRACE results; Indicators for drought/flood monitoring derived from GRACE data; The importance of the gravity data for Earth observation
- Hydrology
  - Groundwater resources; Groundwater measurement; Natural disasters; California and north India drought; Danube floods 2006, their causes and consequences
- Floods/Droughts monitoring
  - European satellite missions for Earth observation; Copernicus Emergency Management Service; Early warning systems; EGSIEM

# About the competition

## - Competition rounds -



- **1st round** based on multiple choice test (20 questions)
  - the information necessary for solving the test can be found in online resources
  - anybody who solves 15+ questions successfully passes automatically to the 2nd round

# About the competition

## - Competition rounds -



- 1st round based on multiple choice test (20 questions)
  - the information necessary for solving the test can be found in online resources
  - anybody who solves 15+ questions successfully passes automatically to the 2nd round
- **2nd round** based on 20 open questions
  - the goal is to gain a deeper understanding of the topic and to get a clear picture of what, why and how is done
  - the geodesists should learn something more about hydrology, and the hydrologists should learn something more about geodesy
  - the task is to answer as many questions as accurate as possible



# About the competition

## - Schedule -

Month1, 1st, 2016	Registration opens
	1st round questions published
	1st round begins
Month2, 10th, 2016	End of registration
	Deadline for 1st round answers
Month2, 12th, 2016	Announcement of 1st round results
	1st round correct answers published
	2nd round begins
	2nd round questions published
Month3, 20th, 2016	Deadline for 2nd round answers
Month4, 13th, 2016	Announcement of finalists/winners
tbd	EGSIEM Summerschool
tbd	Research internship

Work for the students  
2.5 months

Competition duration  
3.5 months



# About the competition

## - Awards -



- **Research internship (1st prize)**
  - Two internships at one of the EGSIEM member institutes
  - Internships will last from 6 to 8 weeks
  - The students will be granted with their travel expenses; health, accident and personal liability insurance; and a monthly allowance covering their living expenses
- **Scholarship for the EGSIEM summer school (2nd prize)**
  - Two scholarships for the EGSIEM summer school
  - The scholarship covers traveling expenses; health, accident and personal liability insurance; accommodation; meals; participation fee

# About the competition

## - Awards -



- All students successfully passing the 1st round will be additionally awarded with:
  - a certificate of participation in the EGSIEM challenge
  - giveaways (e.g. travel mug with EGSIEM logo)



# About the competition - Internal motivation -



- **EGSIEM goes public!**
- a unique opportunity to **advertise EGSIEM** Europe- (world-)wide
- a unique opportunity to **inspire and motive young students** to pursue their career in geodetic/hydrological research
- **what does it mean for us:**
  - delivery of high quality products required --> **internal review process** necessary
  - **research internship:**
    - > research projects of high quality required (challenging, but realistic and clearly defined research tasks)
    - > enthusiasm and time for working with students

# Advertisement -Communication platforms-

- [www.egsiem.challenge.eu](http://www.egsiem.challenge.eu)
- EGSIEM Facebook page



# Advertisement - Channels -

- **Universities with focus on geodesy and hydrology**
  - contact persons: professors and heads of departments
  - medium: direct communication with students, website ad, poster
- **non-university research institutes**
  - contact persons: heads of departments
  - website ad
- **student groups and organizations**
  - via Facebook
- **EGU (?) or other conferences**
  - flyers
- **teaser lecture, press releases**

# Advertisement - Channels -

- E-mail list of universities with focus on geodesy



29 countries  
69 universities  
139 contact persons

- other e-mail lists  in progress

# Organisation

- Definition of the competition
- Rules
- Prizes  (in progress)
- Questions 1st round
- Questions 2nd round  (in progress)
- Internal review  (to be done)
- Advertisement  (in progress)
- Website  (to be done)



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  - 2 projects
  - 1. LUH
  - 2. ???

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  - Website - who will create it???
- (content will be provided by IfE!)

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- Scholarship for the summer school ... **timing ok???**
- **Review process** - questions for 1st and 2nd round
- Start of the competition ???
- Website - **who will create it???** (content will be provided by IfE!)
- Budget: total cost estimate 8000 €  
(Posters/Flyers+giveaways 1000 €, Internship 2x 2400 €, SS 2 x 1200 € )  
**paid from LUH budget or from UBern central budget ?**