

SARCOS PhD & ECI Meeting

Guimarães, Portugal
9th – 10th March, 2020

SCOPE

The aim of this series of events is to connect young researchers, either PhD students or young doctors working on self-healing/repair concrete. In this second edition, during the first day, the attendants will participate in a series of practical activities related with real structure durability problems and train their team-building skills. The second day, the attendants will learn about RILEM, discuss on current world and societal changes involving the construction field and how self-healing can help in overcoming the forthcoming challenges, and give small pitches on their current projects.

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|01| CITY OF GUIMARÃES

The History

In the first half of the 10th century, the location where the city of Guimarães is implanted today was a rural property – the estate Quintana de Vimaranes. But the death of a man – Count Hermenegildo – and the Christian faith of his widow, Countess Mumadona, made it so, that in the second half of the 10th century, this rich Countess of Galician origin decided to build a monastery there – the Mosteiro de Santa Maria – and a castle. The castle was built with the purpose of protecting the monastery from the frequent raids carried out by Normans from the North of Europe, and by Muslims coming from the warm lands of the South.

With the passing of time, the Bourg grew and, at the end of the 11th century, there come to reside here D. Teresa, daughter of Afonso VI of Leon, and her husband, Count D. Henrique, a noble of French origin. Here, according to tradition, was born the eldest of their sons – Afonso Henriques –, who, some years later, in the first half of the 12th century, became the first King of Portugal. It was also in Guimarães that the famous battle of S. Mamede, which opposed D. Afonso Henriques against his mother D. Teresa, took place; one of the historic facts that led to the independence of Portugal.

Largo do Toural - His



Statue of D. Afonso H



Historical Centre



Henriques



Castle of Guimarães



Oliveira Square



|02| VENUE

University of Minho

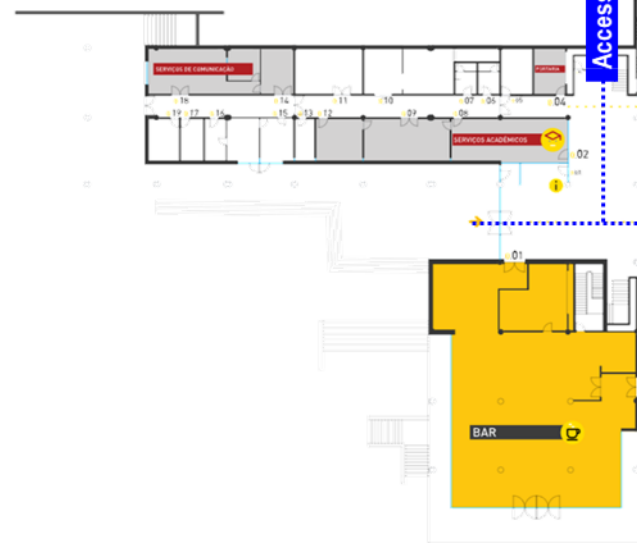
The University of Minho (UMinho) aims to be a university without walls, focusing on the regional, national and international socio-economic environment. UMinho is a research university engaged in the establishment of the chain Knowledge-Research, Development and Innovation - as evidenced by a series of indicators. The ratio between research projects and PhD students is over 0.5 and more than 150 PhD's are awarded every year. The average yearly production of refereed papers in scientific journals is impressive: above 2/FTE/year.

Based on the CWTS Leiden Ranking for 2014, UMinho is the best Portuguese university. In terms of the Times Higher Education (THE) 100 under 50 ranking for 2014, UMinho was on the 75th position and according to the 2014 THE World University Rankings, UMinho was ranked in the range 350-400.

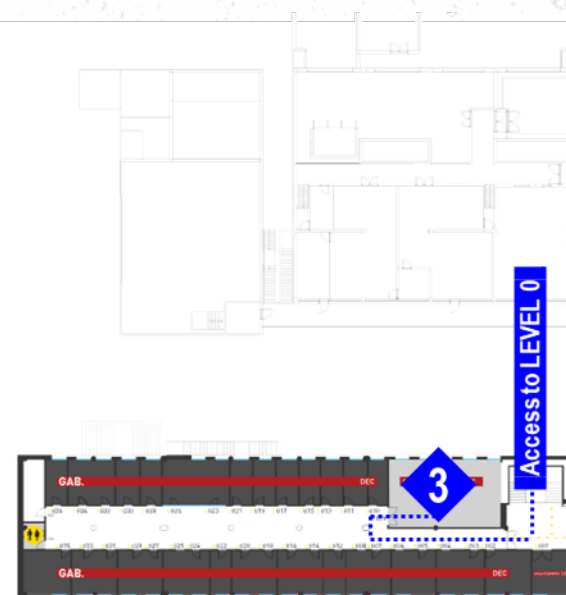
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BLOCK A [LEVEL 0]



BLOCK B [LEVEL 2]



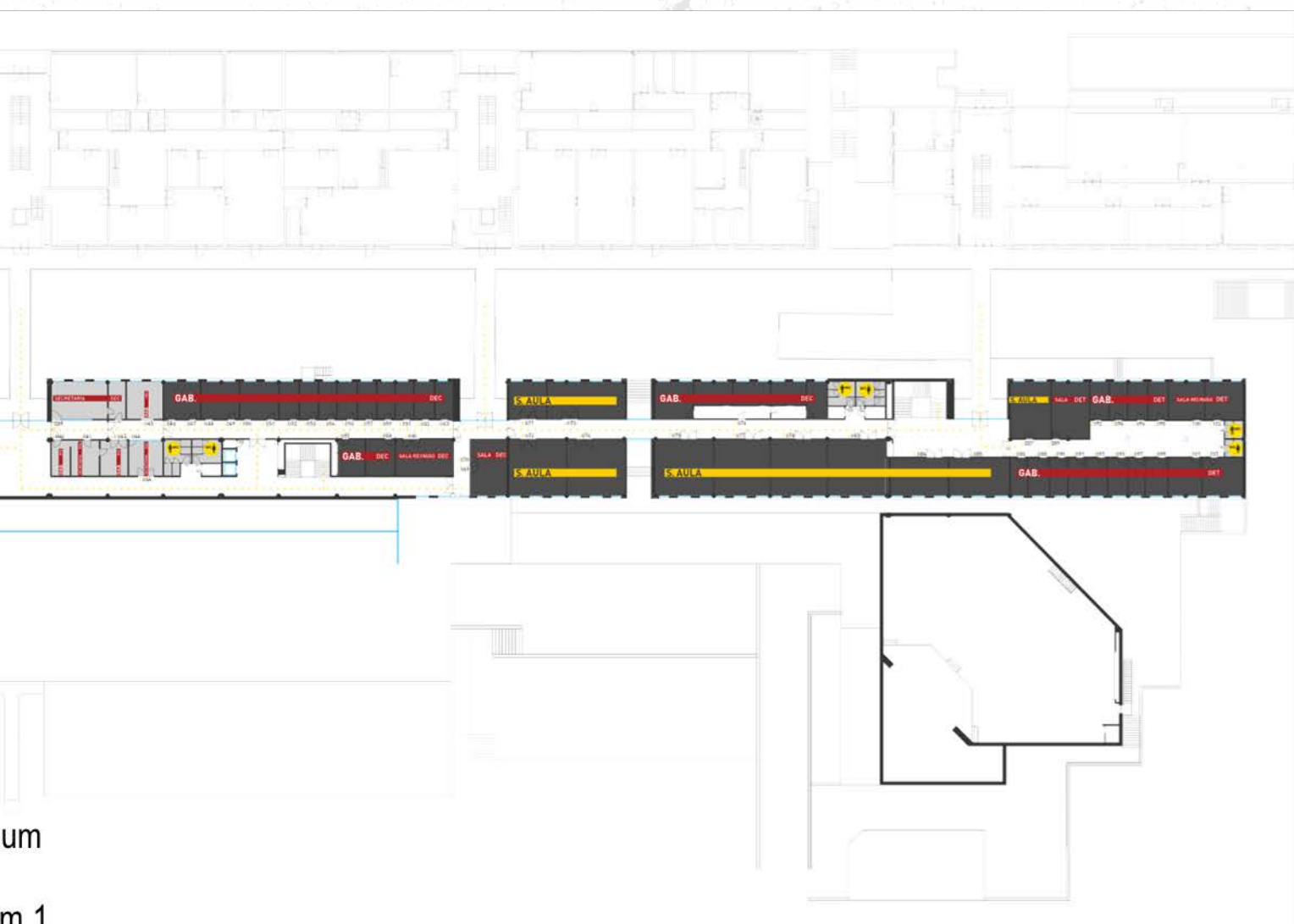
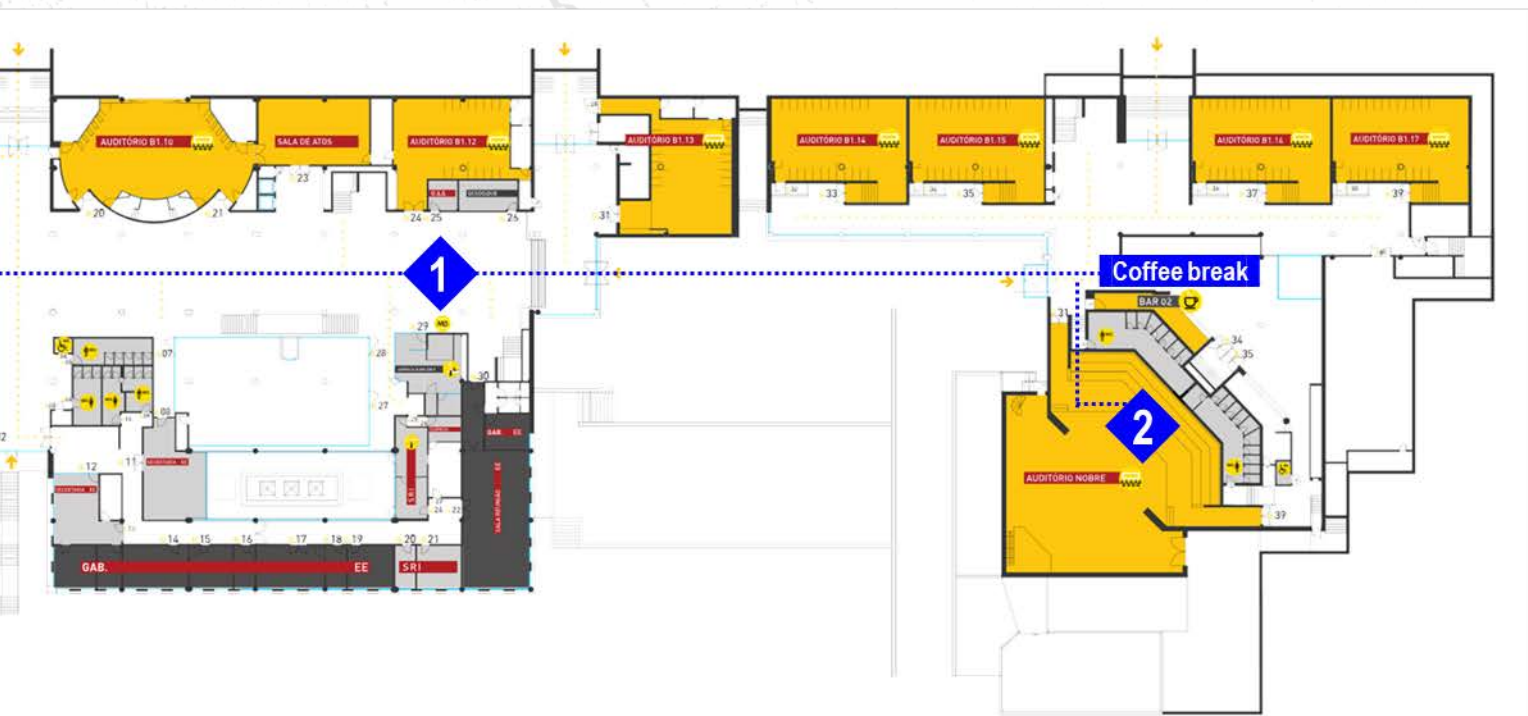
Main Hall



Main auditori



Meeting Roo



|03| PROGRAM

Monday, 9/03/2020

[09:00 – 10:00] Briefing about the planned activities

Meeting Room 1 – Block B

[10:00 – 12:30] Challenge part I

City of Guimarães (walk)

[12:30 – 13:30] Lunch

Cantina – University of Minho

[13:30 – 16:00] Challenge part II

Meeting Room 1 – Block B

[16:00 – 16:30] Coffee-break

[16:30 – 18:45] Presentation

Meeting Room 1 – Block B

[18:45 – 19:00] Voting and award ceremony

Meeting Room 1 – Block B

CHALLENGE PART I

Team groups will go through a route (by foot - following some predefined challenge guidelines provided by the organization) in which they need to find and identify a series of buildings with pathologies. Their route should be documented with photos, particularly focusing potential case studies for 'self-healing' based on rehabilitation approaches.

CHALLENGE PART II

Work group to prepare a presentation regarding:

- i) documentation of their morning course and description of the buildings / structures found;
- ii) Identification of case studies that would be good candidates for a 'self-healing' based rehabilitation;
- iii) Technical description of the pathologies identified;
- iv) Description of rehabilitation strategies proposed for the former case study.

PRESENTATION

Twenty minutes is dedicated to each group: 15 min for the presentation + 5 min for discussion with peers.

NOTE

GROUP PHOTO WILL BE TAKEN AT THE END OF THE CHALLENGE PART I

PITCH SESSIONS

Participants must do a pitch presentation of their work within 3 minutes, using a single slide as a media backup.

Tuesday, 10/03/2020

Opening RILEM ceremony [09:00 – 10:00]
Main auditorium – Block A

Coffee break [10:00 – 10:30]
)

Pitch session 1 [10:30 – 12:30]
Main auditorium – Block A

Lunch [12:30 – 13:30]
Cantina – University of Minho

Pitch session 2 [13:30 – 15:30]
Main auditorium – Block A

Coffee break [15:30 – 16:00]
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Pitch session 3 [12:30 – 13:30]
Main auditorium – Block A

RILEM mix Event [18:30 – 19:30]
Main Hall – Block A

Welcome reception [19:30 – 22:00]
Main Hall – Block A

|04| CHALLENGE

CHALLENGE PART I

Go around Guimarães and complete as many tasks as possible taking photographic evidence for each one. Pay attention when some extra evidence is needed. Keep in mind that there are many narrow streets in Guimarães that can help you in reaching your destination (or could just confuse you more). Remember, a member of the organization will be with each group so that you don't get lost (although that's a challenge on its own).

The main objective is to find (and photograph) the maximum number of buildings with pathologies in the city center, which are good candidates for a "self-healing" based rehabilitation. In the following pages a sample of 12 buildings are presented. Each group should identify a minimum of 6 case studies are required.

Team groups will choose the building they want to focus for the part II of the challenge. The same building can only be chosen by two groups. Priority is given for groups with the shortest time (to complete the quest).

FACTORS TO CONSIDER FOR THE EVALUATION OF THE CHALLENGE PART I

Number case studies (buildings) found
Number of quests completed
Most original quest photos
Time to complete the hunt

Nevertheless, this is a challenge, therefore a set of random quests are also requested:

[] Reach the castle area, you have two options to go there, one is faster! Admire the view and bring us back a silly picture.

EXTRA: TRY TO CAPTURE THE UNIVERSITY OF MINHO IN THE BACKGROUND

[] Find the founder of Portugal and take a picture with him imitating as best as possible his pose.

[] Did you know that the *Caminho de Santiago* passes through Guimarães too? Follow it and take a picture to prove that you were on the right path.

EXTRA: TAKE A PICTURE WITH A GROUP OF TOURISTS

[] The Cathedral (*Church of our Lady of Oliveira*) has many gargoyles on its façade and bell tower. Find a particularly naughty one and take photographic evidence.

HINT: IT'S ON THE BELL TOWER

[] What is one of Portuguese's favorite pastime? Having coffee in an esplanade. Convince a group of locals to take a picture with you.

[] In Rua Egas Moniz there are many interesting traditional houses. One in particular won the Europa Nostra award in 1985 for its restoration project. Take a selfie group photo.

EXTRA: TAKE A PICTURE WITH AN INHABITANT OF THE STREET.

[] Have you seen a lot of buildings with pathologies and still have a lot of time? Walk towards Largo do Toural and take a break. Toural is full of cafés. Drink something if you wish.

Time to come back (to the university) to lunch. From the list of case buildings how many did you find?

1 [] 2 [] 3 [] 4 [] 5 [] 6 []

7 [] 8 [] 9 [] 10 [] 11 [] 12 []

CASE STUDY #1



CASE STUDY #2



CASE STUDY #3



CASE STUDY #4



CASE STUDY #5



CASE STUDY #6



CASE STUDY #7



CASE STUDY #8



CASE STUDY #9



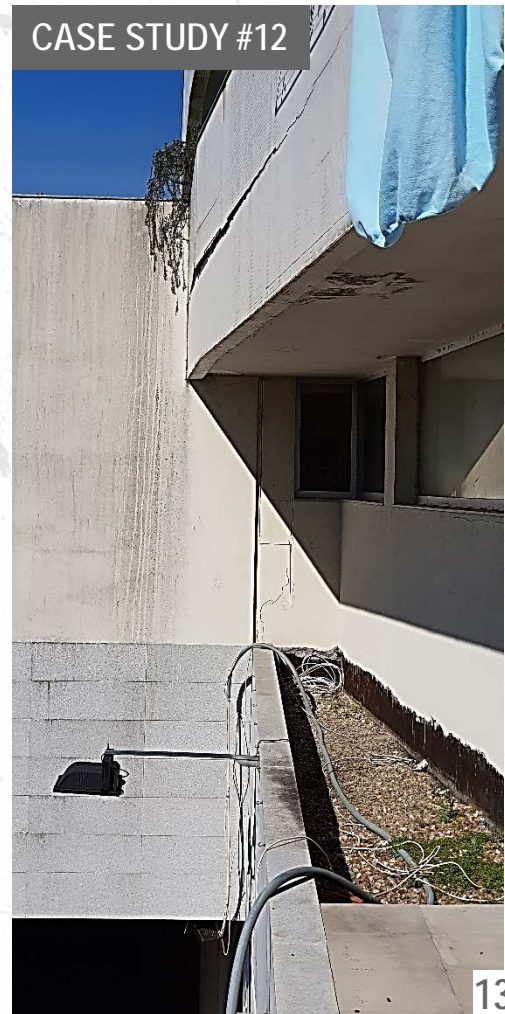
CASE STUDY #10



CASE STUDY #11



CASE STUDY #12



University of Minho



CASTLE



Castelo de
Guimarães

Praceta Rotary
Clube de Guimarães

Al. da Universidade

R. Capitão Alfredo Guimarães

R. Ferreira de Castro

R. A. Herculanio

AMAVE

R. Picoato

R. Joaquim de Mota

Celina
Sagrada

Paço dos
Duques de
Bragança

Estância de Noronha

R. D. Lúcio S. Hoareira

R. P. Ant. Caldas

R. D. Malhada
S. Mamede

R. D. Teresa



CHALLENGE PART II

Once completed the challenge part I, team groups must create a presentation, where they (i) report their morning course and description of the buildings / structures found, namely by (ii) identifying which case studies would be good candidates for a 'self-healing' based rehabilitation. Then, each group should focus in one case study and perform (iii) a technical description of the pathologies identified and (iv) the description of rehabilitation strategies proposed for the former case study. The proposed rehabilitation strategies (iv) should be justified by three journal papers.

All groups have 2.5 hours to complete this second part of the challenge. Then each group will have 15 min to present their work. Therefore, this challenge is a test on your time management, your ability to teamwork as it is on your knowledge on the field of self-healing.

|05| PITCH PRESENTATION

TIPS

- Prepare the presentation in a simple way in order to explain concepts, imagine that your audiences are from another field;
- Don't devalue your research and convey enthusiasm for your subject;
- Have a clear outcome in mind what you want your audience to take away from your presentation;
- Present your pitch presentation like a story, with a beginning, middle and an end;
- Do not write your presentation like an academic paper. Try to use shorter sentences.
- In your Pitch presentation:
 - Try having an opener / icebreaker to introduce yourself in the pitch presentation (approximately for 30 seconds) to catch the audience attention;
 - Then highlight your scientific research (approximately for 90 seconds);
 - Finally summarize the impact of your work (approximately for 60 seconds);
- Practice your presentation up until perfection!

RULES AND GUIDELINES

- Only a single static PowerPoint slide is allowed in the Pitch Presentation;
- The single slide cannot have slide transitions, animations or electronic media;
- Set the slide's aspect ratio to 16:9;
- The single slide of pitch presentation is displayed from the beginning of presentations;
- All participants will be split into groups of 11 members. The member of each group will do their pitch presentations consecutively (3 minutes per each pitch presentation) and then, 10 minutes for Q&A session. At the end, the 2 best pitch presentations are selected between these 11 pitch presentations;
- The presenter's microphone will be automatically turned off precisely after 3 minutes.

DEADLINES

- The participant should send their pitch presentations until March 4th

BEST PITCH SELECTION

- The best pitches will be selected based on the voting of the Workshop attendees.
- The voting will be performed through a mobile application. Do not forget to bring your smartphone!

|06| SOCIAL PROGRAM

RILEM MIX EVENT & WELCOME RECEPTION

An icebreaker challenging game bringing together two generations, Young and Senior Engineers, is proposed to the Event participants, composed of groups of six to eight participants randomly selected at the registration stage. The event includes a structural engineering quiz with an interactive platform, ambient music and cocktail. Awards will be granted to the best performance. The event is limited to 150 participants.

|07| CERTIFICATE OF ATTENDANCE

Certificate of attendance will be sent by email after the Event.

|08| WIFI ACCESS

Complimentary Wi-Fi within the University Campus is being provided to all participants. The Wi-Fi (Eduroam) access is free (Username: **rilem@guest** / Password: **2020!!rilem**).

|09| FOOD SERVICE

Coffee breaks will be served in the Hall, near the Main auditorium. Lunch will be served in the Cantina (Building 04).

Dr. Bojan Miljevic, ITC Manager
Dr. Marta Roig Flores, ECI Manager
Dr. Eduardo Pereira, Host institution
Dr. Vítor Cunha, Host institution
Dr. M. Sánchez Moreno
Dr. M.J. Bayarri Clariana
Dr. Luís Correia, Host institution
Dr. Chandan Gowda, Host institution
Dr. Mohammadali Rezazadeh, Host institution

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Organized by

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