



QUALITY SPECIFICATIONS FOR ROADWAY BRIDGES,
STANDARDIZATION AT A EUROPEAN LEVEL

FINAL CONFERENCE OF COST ACTION TU1406

March 25th – 26th, 2019

Guimarães, Portugal



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FINAL CONFERENCE

COST ACTION TU1406

QUALITY SPECIFICATIONS FOR ROADWAY BRIDGES,
STANDARDIZATION AT A EUROPEAN LEVEL

25th and 26th of March, 2019

University of Minho
Campus de Azurém
4800-058 Guimarães
Portugal

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1. INTRODUCTION

1.1. OBJECTIVES

The final conference of COST Action TU1406 “Quality specifications for roadway bridges, standardization at a European level” (www.tu1406.eu), will be held in Guimarães, Portugal, at the University of Minho on 25th and 26th of March 2019.

In the first year of COST Action TU1406 the main focus was on the screening process of existing European documents and establishing a database for PIs. The second year of the project was focused on technical and non-technical bridge performance goals, followed by the establishment of quality control plans, applications to case studies and recommendations for guidelines in the third year.

The conference will be dedicated to the following topics:

- Outcomes and balance of COST Action TU1406;
- Present status of bridge management;
- Futures perspectives for bridge management.

1.2. PROGRAMME

Monday, 25th March 2019	
08:00 – 08:30	Registration
08:30 – 08:45	Welcome and opening session by <i>João L. Monteiro, President School of Engineering of the University of Minho,</i> <i>José C. Matos, Management Committee Chair</i>
08:45 – 10:15	Panel Discussion: <i>What can we get from COST Actions?</i> Moderator: <i>Joan Casas, Management Committee Vice-Chair</i> Rapporteur: <i>Yiannis Xenidis, Research & Development Subgroup Leader</i>
10:15 – 10:45	Coffee Break
10:45 – 12:15	Panel Discussion: <i>The situation of road bridges in Europe, what can we do better?</i> Moderator: <i>Rade Hajdin, WG3 Leader</i> Rapporteur: <i>Matej Kušar, WG3 Vice-Leader</i>
12:15 – 13:30	Lunch ⁽¹⁾
13:30 – 15:00	Panel Discussion: <i>Status on the performance assessment of bridge structures across Europe</i> Moderator: <i>Alfred Strauss, WG1 Leader</i> Rapporteur: <i>Ana Mandić Ivanković, WG1 Vice-Leader</i>
15:00 – 15:30	Coffee break
15:30 – 17:00	Panel Discussion: <i>What are the expectations for society?</i> Moderator: <i>Irina Stipanović, WG2 Leader</i> Rapporteur: <i>Niels Peter Høj, Industry Advisory Board Leader</i>
17:00 – 17:30	MC Meeting ⁽²⁾
18:00 – 19:00	Walking tour in Guimarães ⁽³⁾

Tuesday, 26th March 2019

08:00 – 08:30	Registration
08:30 – 10:00	Panel Discussion: <i>Innovation on the Quality Control of bridges</i> Moderator: <i>Maria Limongelli, Innovation Subgroup Vice-Leader</i> Rapporteur: <i>André Orcesi, Innovation Subgroup Leader</i>
10:00 – 10:30	Coffee-Break
10:30 – 12:00	Panel Discussion: <i>How quality control of bridges is performed outside Europe</i> Moderator: <i>Amir Kedar, WG4 Leader</i> Rapporteur: <i>Sander Sein, WG4 Vice-Leader</i>
12:00 – 13:15	Lunch ⁽¹⁾
13:15 – 14:45	Panel Discussion: <i>What's next?</i> Moderator: <i>José C. Matos, Management Committee Chair</i> Rapporteur: <i>Vikram Pakrashi, WG5 Leader</i>
14:45 – 15:00	Closing session by <i>José C. Matos, Management Committee Chair of COST Action TU1406</i>
18:00 – 21:00	Networking Dinner ⁽³⁾

NOTE: (1) Lunches will have a cost of 20€ each, which must be paid in cash at the time of registration. It is appreciated that the payment is made with the exact amount. Registration in this [Doodle](#) is required. Please read the initial information.
 (2) Only for MC Members and MC Observers.
 (3) See chapter 3.

1.3. LOCATION, DATES AND TRAVELLING

1.3.1. LOCATION AND DATE

The conference will take place at the [Auditorium of the School of Engineering of the University of Minho](#), located in the **Campus de Azurém, University Avenue, 4800-058 Guimarães, Portugal** on Monday 25th and Tuesday 26th of March 2019.



Fig. 1. University of Minho, Campus de Azurém – outside view

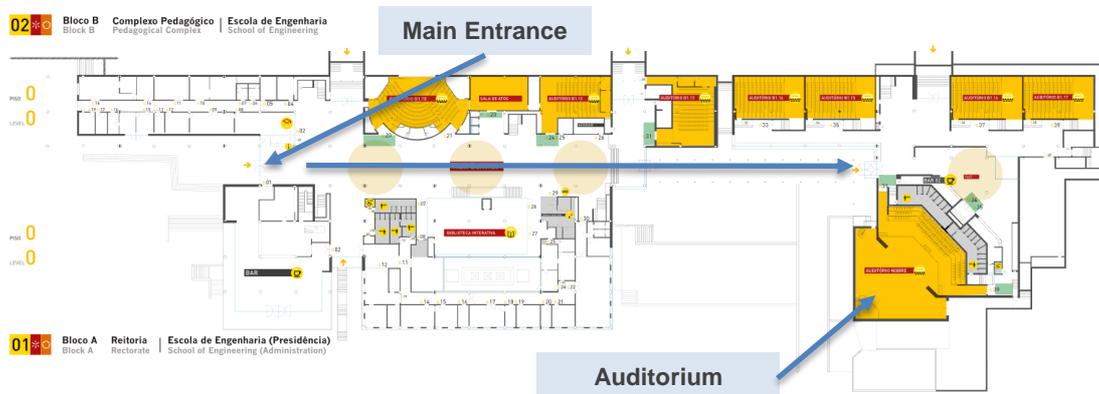


Fig. 2. University of Minho, Campus de Azurém – inside plan

Founded in 1973, the University of Minho welcomed its first students in the academic year of 1975/76. At present, the University is renowned for its competence and quality of teaching staff, excellence in scientific research, wide range of undergraduate and graduate courses offered and for its high level of interaction with other institutions.

For these reasons, UMinho has a central role in the region and is an important reference for the country and a recognised partner in the European and global scene. Located in the north of Portugal, the University has a campus in Braga and two others in Guimarães, Azurém Campus and Courous Campus.

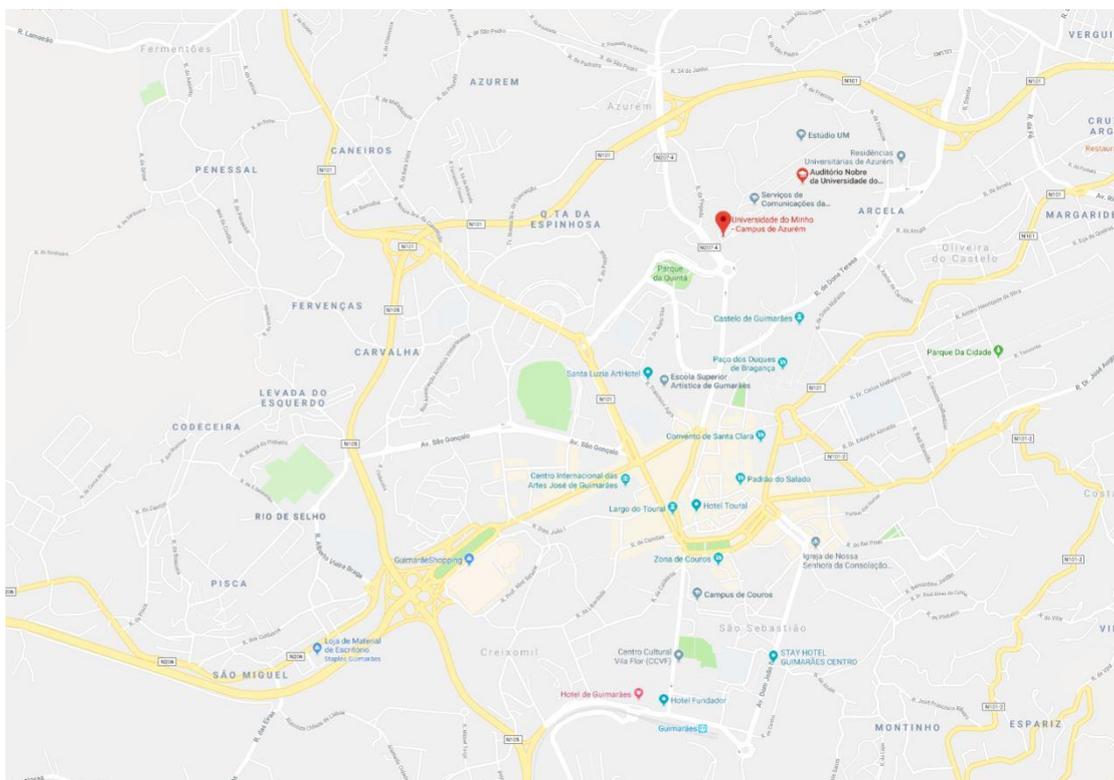


Fig. 3. Location scheme of the meeting Venue

Originating from the ancient Roman town of Bracara Augusta, Braga is currently the third largest city in Portugal. Guimarães is known as the "cradle of the nation" and is classified as World Cultural Heritage by UNESCO.

The University's organisational structure is flexible and conducive to innovation and interdisciplinary research on emerging topics. The teaching and research courses and the Schools and the Institutes are the basic structure of the University: Schools of Architecture, Sciences, Health Sciences, Law, Economics and Management, Engineering, Psychology, Nursing, and the Institutes of Social Sciences, Education and Arts and Human Sciences.

The courses and research projects have a strong international reputation. UMinho is a targeted research university, committed to the value chain of knowledge, in other words: Research, Development and Innovation. It also points to the socio-economic environment, with many successful partnerships in research, cultural and socio-economic development projects.

Internationalisation is a strong commitment and international activities are quite intense, not only within the EU and Portuguese Official Language African Countries (PALOP), but also with several other countries on different continents. The academic year of 2010/2011 was marked by the introduction of a wide range of courses which extended to distance-learning programmes and evening classes. This educational offer had a great social impact and opened the University to a new public, within the framework of demand and quality which has always been the hallmark of this Institution.

Guimarães is a Portuguese city located in the District of Braga, in the north and sub-region of Ave (one of the most industrialized sub-regions of the country), with a population of 52,182 inhabitants. The municipality is bordered to the north by the municipality of Póvoa de Lanhoso, to the east by Fafe, to the south by Felgueiras, Vizela and Santo Tirso, to the west by Vila Nova de Famalicão and to the northwest by Braga.



Fig. 4. Guimarães

It is a historical city, with a crucial role in the formation of Portugal, and that counts more than a millennium since its formation, when it was designated as Vimaranes. Guimarães is one of the most important historical cities in the country, and its historical center is considered Cultural Patrimony of Humanity, making it definitely one of the largest tourist centers in the region. Its streets and monuments breathe history and delight those who visit it. Today Guimarães was able to reconcile, in the best way, the history and consequent maintenance of the heritage with the dynamism and entrepreneurship that characterize the modern cities.

Guimarães is often referred to as "cradle city of Portugal", due to the fact that the administrative center of the Portucalense County was established by D. Henrique and his son D. Afonso Henriques to have been born in this city and fundamentally for the historical importance that the Battle of São Mamede, waged on the outskirts of the city on June 24, 1128, had for the formation of nationality. However, the needs of the Reconquest and protection of southern territories led this same center to Coimbra in 1129. The "Vimaranenses" are proudly treated by "Conquistadores", fruit of this historical heritage of conquest begun precisely in Guimarães.

1.3.2. HOW TO GET TO GUIMARÃES

By plane

A useful link for airway connections to Porto is: <http://www.ana.pt/en/opo/flights-destinations/airlines/airlines-and-destinations>.

Direct bus

[GETBUS](#) operates a direct service between Porto Airport and Guimarães, costing €8.00 each way or €14.00 return. There are seven or eight buses each way depending on which day of the week. The journey takes 50 minutes and is the quickest way. Tickets can be bought on line or from the bus driver. At Guimarães tickets are also sold at the Mondinense ticket office in the bus station.

Metro and train

By metro and train it is straightforward and inexpensive, but slower. Take the METRO DO PORTO Line E from the Airport to Campanhã station. Trains run about every 20 minutes for most of the day on weekdays, every 30 minutes at other times including weekends and holidays, from around 6am until just after midnight. That will take about 33 minutes and costs €2.60 - a Z4 (four zone) ticket. More details at the METRO DO PORTO [website](#). By the way, don't throw away your 'ANDANTE' ticket if you are coming back to Porto. It is rechargeable. You can use it until it wears out and saves you €0.60 on each subsequent ticket of the same type. Tickets are sold at the Airport tourist office, but if it's not open you will need some coins for the ticket machines.

At Campanhã walk round from the Metro station to the main railway station of CP, Portuguese Railways. That takes only a couple of minutes.

From there, local electric trains of the Porto Urbanos network run to Guimarães about once every TWO hours, with extra trains on weekday rush hours. The journey takes about 1 hour and 10 minutes and will cost €3.20. There are simple to use ticket machines in the hall; there were long lines at the ticket office all three times I was there. The machines take notes as well as coins. NB these tickets are NOT VALID on Intercity trains. Urbanos trains are (mostly) bright yellow!

First train from Porto São Bento is at 06:20 on weekdays, 07:20 at weekends and holidays and the last train is at 23:20 daily. These stop at Porto Campanhã five minutes later. Be sure to check timetables at the Portugal Railways Official [website](#).

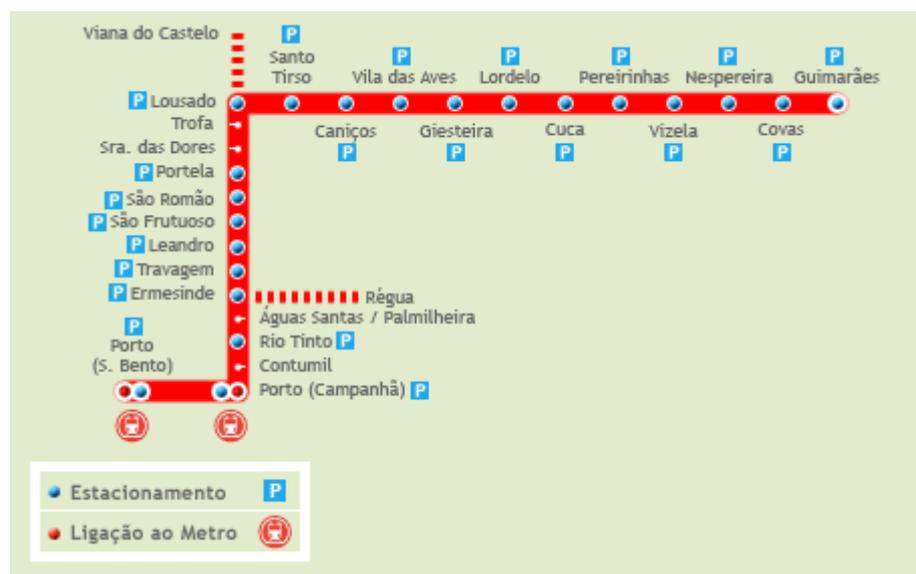


Fig. 5. Train stations between Porto and Guimarães

Trains from Guimarães to Porto start at 05:48 on weekdays, 06:48 at weekends and holidays, with the last train at 22:48 daily.

If you plan to spend some time in Porto before moving on, the trains to Guimarães start at the city centre SÃO BENTO station. This historic building is in the heart of the city (it has a Metro station also) and is worth a visit in its own right!

By bus from Porto city centre

The bus fare is nearly double the train fare.

The Arriva 'Rápida' bus service (route 500) also runs between Porto and Guimarães, making the trip in about 50 minutes. Buses run every 1 - 2 hours on weekdays, less frequently at weekends. Timetable [here](#). The Porto terminal for Arriva is in Rua Régulo Magauanha close to the Trindade metro station.

[TRANSDEV](#) also has a local bus service between Porto (Campo 24 de Agosto) and Guimarães with six buses on weekdays, three on Saturdays and two on Sundays and holidays.

1.4. ACCOMMODATION

The local organizers recommend using the following listed hotels for accommodation, conveniently located near the venue.

Santa Luzia Arthotel****
 Rua Francisco Agra, 100
 4800-157 Guimarães
<http://santaluziaarthotel.com/en/santa-luzia-arthotel>

Special rate for reservation requests identified with "COST TU 1406":

Tipology	Single	Duplo
<i>Comfort</i>	80,00 €	90,00 €
<i>Prestige</i>	110,00 €	120,00 €

Hotel de Guimarães****
 Rua Eduardo Manuel De Almeida
 4810-440 Guimarães
<http://www.hotel-quimaraes.com/EN/hotel.html>

Hotel Fundador***
 Av. D. Afonso Henriques, 740
 4810-912 Guimarães
<http://www.hotelfundador.com/EN/home.html>

Hotel Toural****
 Largo António Leite de Carvalho
 4800-153 Guimarães
<http://www.hoteltoural.com/en/hotel-toural.html>

Stay Hotel****
 Av. Dom João IV 631, S. Sebastião
 4810-532 Guimarães
<https://www.stayhotels.pt/stayhotelquimaraescentro/en/home>

1.5. COMMITTEES

An organizing committee was defined.

1.5.1. ORGANIZING COMMITTEE

<i>Name</i>	<i>TU1406 Position</i>	<i>E-mail</i>
José Matos	Chair & Local Organizer	chair@tu1406.eu
Sérgio Fernandes	MC Member & Local Organizer	support@tu1406.eu
João Amado	MC Member	joao.amado@infraestruturasdeportugal.pt
Susana Santos	Local Organizer support	susanasantos@civil.uminho.pt
Neryvaldo Galvão	Local Organizer support	neryvaldo.galvao17@live.com

1.5.2. SECRETARIAT

<i>Name</i>	<i>TU1406 Position</i>	<i>E-mail</i>
Eleni Chatzi	Technical Secretariat	tecsec@tu1406.eu
Sónia Esteves	Administrative Secretariat	admsec@tu1406.eu

2. PARTICIPATION

2.1. FUNDING AND REIMBURSEMENT

COST organization provides a certain amount of financial means for organizing such meetings and to reimburse participants. This includes for example accommodation costs, meals, transport expenses, etc. For more information about travel reimbursement request please visit the following [webpage](#). Please book your flight and hotel as soon as possible in order to find cheap solutions.

3. SOCIAL EVENTS

3.1. WALKING TOUR

A walking tour through Guimarães will take place on March 25th 2019 at 18:00.

The meeting place will be next to the [statue of D. Afonso Henriques](#), next to the [Palace of the Dukes of Bragança](#), which is at walking distance (10 min.) from the venue.

Registration via [Doodle](#) **until 19th of March** is required.

3.2. NETWORKING DINNER

A networking dinner will be organized on March 26th 2019, from 18:00 to 21:00.

The dinner will be held together with the [IABSE Welcome Reception](#) at the Palace of the Dukes of Bragança, a medieval estate and former residence of the first Dukes of Bragança, located in the historical centre of Guimarães.

For those registered in the IABSE symposium, the cost of dinner is already included in the registration fee of this event.

For those not registered in the IABSE symposium, the cost is 40€ per person which must be paid in cash at the time of registration. It is appreciated that the payment is made with the exact amount.

To attend this event a registration is required. Therefore **all people willing to participate are asked to fill in the given Doodle registration form until 19th of March** in order to book accordingly. In the form please put your name and vote by choosing a button beside your name. Please read the initial information.



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