# CALL FOR PARTICIPATION REHAB 2022 WORKSHOP

6TH WORKSHOP ON ICTS FOR IMPROVING PATIENTS REHABILITATION RESEARCH TECHNIQUES

# **GOALS AND TOPICS**

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Teruel, Spain September 08-09, 2022

Universidad de Zaragoza Teruel-Spain

C/Atarazana, 4

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# SCOPE

REHAB 2022: 6th Workshop on ICTs for improving Patients Rehabilitation Research Techniques

The 6TH edition of the International Workshop on ICTS for Improving Patients Rehabilitation **(Rehab 2022)** will take place in **Teruel** (Aragón, Spain), at the campus of the University of Zaragoza, from **September 8th to 9th, 2022,** together with conference on Human-Computer Interaction **(Interacción 2022)** and the organization of the AffectiveLab and EduQTech research groups of the University of Zaragoza. The workshop has been organized in face-to-face mode.

The main objective of **Rehab 2022** is to bring together researchers, students and professionals focused on technological systems and health, both from academia and industry, in order to promote the presentation of innovative proposals, exchange of ideas and discussion. Rehab 2022 takes a multi-disciplinary approach to the Virtual Rehabilitation discipline, so that it seeks to attract those working in computer science, but also in other disciplines.

This year, Rehab Workshop will be held within the XXII edition of the International Human-Computer Conference **(Interaction 2022)**, which has its own call for contributions. All the information about Interaction 2022 can be found at Interaction 2022 (https://interaccion2022.unizar.es/)

During the last few years, there has been increasing interest in the application of **Virtual Reality** and **Information and Communication Technologies** (ICTs), in the field of **rehabilitation**, with clinical results that prove their effectiveness.

The virtual reality is being an increasingly used method in **physical rehabilitation**, allowing individualized treatments, as to facilitate **learning motivation**, to finally, provides patients pleasant and enjoyable **homework exercises**.

# OBJECTIVE

This workshop invites authors to submit contributions on concepts **Virtual Rehabilitation Discussion, applications, techniques or environments** where **interaction design** play a central role by improving the **rehabilitation process** at all levels.

#### **PREVIOUS EDITIONS:**

- REHAB 2019 (http://rehab-workshop.org/)
- REHAB 2016 (http://www.rehab-workshop.org/2016/)
- REHAB 2015 (http://www.rehab-workshop.org/2015/)
- REHAB 2014 (http://www.rehab-workshop.org/2014/)
- REHAB 2013 (http://www.rehab-workshop.org/2013/)

#### **TOPICS:**

- Virtual and enhanced environments
- Motor rehabilitation
- Neuroimaging in rehabilitation
- Virtual rehabilitation
- Clinical assessment
- Cognitive rehabilitation
- Communication and language
- Ambisonics and audio environments
- Haptic devices
- Sensory impairment
- Medical systems
- Input devices, sensors and actuators
- Multi-user systems for user interaction

- Computer access
- Virtual humans
- Balance, posture and mobility
- Communications aids
- Tools for architectural/CAD design
- Product design, testing and prototyping
- Training tools for rehabilitation
- Augmented reality applications
- Human factors
- Rehabilitation robotics
- Children with disabilities

## **KEYNOTE SPEAKER**

#### ANTHONY L. BROOKS (AKA TONY)

School of Media Technology

University of Aalborg, Esbjerg



From being born into a family with disabled members, an early engineering degree and subsequent early uptake of ICT and sensor technologies across disciplines, Brooks has been avant-garde in pioneering the exploration and subsequent uptake of digital technologies towards advancing (re)habilitation. His four decades of research in the field has led to national and international awards; multi-million Euro projects; seven patents; approximately forty plenary keynotes; approximately 250 publications including eleven books; an emergent optimization model for patient intervention and treatment design. Brooks is active as an 'expert' under various organization including the European Commission, the Alliance for Innovation, and EUREKA (S+T+ART). He is Danish country representative at UNESCO's IFIP (International Federation for Information Processing) and has been invited speaker at the United Nations Headquarters in New York City

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speaking on technology potentials within disability. He is on numerous academic boards and committees and he has examined numerous PhD viva in different countries. Showcases of his work include numerous Olympics and Paralympics including parallel scientific symposium and exhibitions – also international MoMAs, festivals, etc.

Around the turn of the century Brooks' research was responsible for an industry start-up, patents, and commercial product. The product was later subject of independent research studies by senior physiotherapists stating that the "feed-back training group showed a marked improvement that was up to 400% in the training specific performance /concluding/ Clinical Rehabilitation Impact."\*

Brooks' body of ongoing work goes under the "SoundScapes" name with his associated concepts of ArtAbilitation ©, GameAbilitation ©, and AquAbilitation ©. He is always open for project collaboration proposals. He is currently employed at Aalborg University in Denmark.

# SUBMISSION AND PUBLICATION

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#### **SUBMISSION**

We invite researchers interested in these topics to submit a workshop paper (4 pages) using the **ACM format** for papers (http://www.acm.org/publications/proceedings-template). Please find detailed instructions on the REHAB Web Page Papers should be submitted in PDF format via **EasyChair** submission page (https://easychair.org/conferences/?conf=rehab2022).

Please note that at least one author of an accepted paper must register for the REHAB workshop.

A Wiki for Calls for Papers. (http://www.wikicfp.com/cfp/servlet/event.showcfp?eventid=156900)

#### PUBLICATION

All accepted submissions would be published in the ACM Digital Library, and Extended into Springer Chapter books to be indexed by dblp, Scopus and Science Direct and submitted to Thomson Reuters Conference Proceedings Citation Index-Science (ISI Web of Science).

All accepted papers will be invited to submit an **extended version** for inclusion in a special issue of an (ISI) International Journal, according to the paper topic:

Special Issue "Virtual Reality Rehabilitation, Exercise and Health Promotion", International Journal of Environmental Research and Public Health(IF: 3.39) (https://www.mdpi.com/journal/ijerph/special\_issues/Virtual\_Health) Special Issue "Advanced Cutting-Edge Research on Applied Research on Human-Computer Interaction",

Sustainability(IF: 3.251) (https://www.mdpi.com/journal/sustainability/special issues/applied research human computer interaction) Submission Deadline Extension: May 15, 2022

Author Notification: June 8, 2022

Camera-Ready Deadline: June 29th, 2022

Workshop Date: Sept 08th-09th, 2022

REGISTRATION

Registration	Early Fee	Regular Fee	Regular Fee
Category Rehab	(by July 1th)	(after July 1th)	(In the workshop)
Speaker	400€	500€	550€
Non-Speaker and students	250€	325€	350€
Additional Paper	150€	200€	200€
Registration category	Early Fee	Regular Fee	Regular Fee
Rehab+Interaction	(by July 1th)	(after July 1th)	(In the workshop)
Speaker	600€	750€	825€
Non-Speaker and students	500€	625€	675€

#### Belinda Lange.

Institute for Creative Technologies, University of Southern California

#### Willem-Paul Brinkman.

Delft University of Technology

#### Mariano Luis Alcañiz.

Instituto Interuniversitario de Investigación en Bioingeniería

#### Beatriz Rey.

Universidad Politécnica de Valencia

#### **Christos Bouras.**

University of Patras

#### Imre Cikajlo.

Univerzitetni rehabilitacijski inštitut Republike Slovenije

#### **Roberto Lloréns.**

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#### José Antonio Gil.

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**Hermenegildo Gil.** Universidad Politécnica de Valencia

#### **Kjartan Halvorsen.** Uppsala University

**Thalmann Daniel.** University of Paul Sabatier

**Rosa Maria E. Moreira.** Universidade do Estado do Rio de Janeiro

#### **Georgina Cárdenas-López.** Universidad Nacional Autónoma de México

### Evelyne Klinger.

French National Research Agency

#### Ben Challis.

Cardiff School of Creative & Cultural Industries

#### Patricia Mesa Gresa.

Universidad Politécnica de Valencia

#### Hermenegildo Gil Gómez.

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### **ORGANIZATION COMMITTEE:**

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