

UT Austin | Portugal INTERNATIONAL COLLABORATORY FOR EMERGING TECHNOLOGIES, CoLAB



Digital Media Summer Institute 2012

Short courses with UT Austin faculty in Lisbon and Porto.



The sixth annual Summer Institute will offer students and professionals in Lisbon and Porto the opportunity to explore a variety of digital media topics ranging from animation to entrepreneurial journalism.

Renowned instructors from the University of Texas at Austin will teach six intensive short courses from two to three weeks in duration in June and July. The courses will be taught at the graduate level.

Program at a Glance

Lisbon (FCSH/UNL)

- Entrepreneurial Journalism
Rosental Alves, UT Austin - 4 to 15 June
- Research Methods
Sharon Strover and Joe Straubhaar, UT Austin - 4 to 12 June and 21 to 29 June
- Cinematography
Steve Mims, UT Austin - 18 June to 6 July

Porto (FEUP)

- Animation: Illusional Worlds
Jeanne Stern - 25 June to 13 July
- Human Computer Interaction
Luis Francisco-Revilla, UT Austin - 2 to 21 July

More information about how to apply and the complete course descriptions can be found at: http://utaustinportugal.org/news/digital_media_summer_institute_2012

M4m - Music for Media [<http://music4media.org/>] starts moving

m4m – Music for Media aims at creating a network of cooperation between the University of Porto and several renewed institutions worldwide: New York University (NYU), University of California, Santa Barbara (UCSB), University of Texas at Austin (UT Austin), in the United States, Sonic Arts Research Center (SARC), University of Manchester (NOVARS), University of Sussex in the United Kingdom, and the Utrecht School Of The Arts in The Netherlands.

This network has as goal of putting University of Porto in the international map in the area of music and new media, and will be focusing on the exchange of students and faculty, as well as partnerships in educational and research projects.

Through this project, the m4m team expects to develop a solid culture of excellence in the musical area and new media at the University of Porto. During 2012, distinguished faculty members from the institutions that are part of the m4m network will come to Porto to deliver a lecture about the impact of new media in music making, as well as their contributions to the current state of the art.

THE LECTURE SERIES

The m4m lecture series addresses the current impact of new media in music creation and production.

In the first half of the 20th century, important musicians such as Luigi Russolo, John Cage and Edgard Varèse,

foresaw new radical ways of making music through the use of new technologies. In the 1950s, the emergence of electronic music studios and the utilization of computers in music making helped conquering a fascinating new world of sound, and promoted radical new ways of thinking musical composition. The computer allowed to analyze and create sound in previously unforeseen ways, and computer-aided composition pushed the boundaries of traditional concert music. In the beginning of the twenty-first century, the internet and network technologies revolutionized music distribution, and the world wide web became an important stage for distributed music performance enabling musicians from different points in the world to collaborate in real time. More recently, mobile devices such as smartphones or tablets have emerged as new music-making artifacts.

The second decade of the twenty-first century is thus an interesting time to assess the impact new media technologies in music making and take a peek into the future. Clarence Barlow (UCSB), Ricardo Climent (NOVARS), Sally Jane Norman (University of Sussex), Bruce Pennycook (UT Austin), Pedro Rebelo (SARC), Robert Rowe (NYU), and Hans Timmermans (HKU) will be giving fascinating lectures about the impact of new media in music making. The schedule for the lectures, their abstracts and bios of the speakers can be viewed at <http://music4media.org/info/>

Program Faculty and Students Present Work at ACM-SIGCHI

Several UTA-P Digital Media faculty and students presented research at the ACM-SIGCHI annual conference on Human Factors in Computing Systems, one of the leading international meetings on Human-Computer Interaction. Attendees included U. Porto professor Verónica Orvalho, U. Porto students Tiago Fernandes and Luís Leite, UNL researcher Tomás Henriques, student Isabel Paiva of UNL, who is currently taking courses at UT, and dual-degree student João Beira, who is enrolled in the Radio-TV-Film PhD program.

Orvalho and Leite participated in the Design and Human Experience poster session, presenting "Shape Your Body: Control a Virtual Silhouette Using Body Motion." Employing an actor's entire body as a means to control a virtual silhouette, the project allows real-time animation of a virtual shadow puppet. In doing so, the work combines live acting performance and the manipulation of a puppeteer. Orvalho also took part in another poster session titled "Mind Maps as Behavior Controllers for Children," with U. Porto students and Instituto de Telecomunicações researchers Tiago Fernandes and José Serra. The project proposes a new interface method for controlling virtual characters' artificial intelligence and behavior in games.

Henriques, who is currently a post-doctoral researcher at the Music Department of Buffalo State College in New

York, presented a paper describing SONIK Spring, a new digital music production interface that allows real-time control of sound. Using a fifteen-inch spring controlled by the user's hands, the technology links gestural motion and kinesthetic feedback to the musical experience.

Working with an interdisciplinary team of researchers and consulting faculty, Beira and Paiva are developing a motion-capture technology application called Super Mirror: An Interface for Ballet Dancers. Using Microsoft's Kinect, a motion sensing input device, the application records dance poses and captures live motion, comparing the two in order to improve the quality of performers' feedback. The project is highly interdisciplinary and includes the collaboration of UT School of Information students Zoe Marquardt and Natalia Em as well as Sebastian Kox, a Netherlands-based multimedia artist and technology developer.

Paiva found the overall conference very helpful to the development of her work, stating, "CHI2012 was an excellent opportunity to experience state-of-the-art work in human computer interaction. Regarding the context of my doctoral research, visiting CHI was very relevant, allowing me to meet and discuss ideas with other researchers in my field of interest."

Lead Researchers Orvalho and Aggarwal Present LIFEisGAME Project



Principal investigators Verónica Orvalho, a professor of Computer Science at U. Porto and Jake Aggarwal, a professor in Electrical and Computer Engineering at UT Austin, gave a presentation and demonstration of their project LIFEisGAME on May 9. The talk took place at the IC2 Institute, a UT Austin research organization specializing in business and technology. LIFEisGAME is an FCT-funded research project that commenced in 2010 and developed with the interdisciplinary collaboration of faculty, researchers, and consultants from a range of departments at UT Austin and U. Porto, Microsoft, and the nonprofit, public interest organization Instituto de Telecomunicações.

LIFEisGAME uses virtual character synthesis and real-time facial expression analysis to help children with Autism Spectrum Disorder improve their communication and emotion

recognition skills. The game features four modes of increasing complexity. In the first mode, children learn to identify specific facial expressions such as surprise or anger; in the second, the child is given the opportunity to actually "build a face" on a 3D character to reflect a specific emotion. The third mode features an avatar that mimics the user's expressions. This mode also challenges the user to achieve a target facial expression. In the final "live a story" mode, users are asked to make an expression that corresponds to a situation depicted in an on-screen story. This highly interactive, customizable game offers children a variety of ways to hone their interpersonal skills under the guidance of a therapist.

During the presentation, Orvalho and Aggarwal, assisted by U. Porto doctoral student Tiago Fernandes, demonstrated the game and described the project's development and potential applications of the emerging technology. The researchers also addressed design questions from a user perspective, discussing elements of the game with a local ASD child therapist and laying the groundwork for future collaboration with those in the clinical community.



Digital Media Students Head to California for Research



A BioBit Approach to Development (Ferraz)

Doctoral Students Marta Ferraz and Afonso O'Neill spent a few days in southern California last month pursuing their respective research projects and visiting a company specializing in biotechnological systems. Their individual collaborations with the company are predicted to yield patents in various fields.

Early statistical results from Ferraz's doctoral project, titled "A Biobit Approach to Development: Envisioning a New Evolutionary Theory for Children's Development," demonstrate the relationship between the use of the cybernetic body in natural environments and the development of positive learning skills. O'Neill, who has been pursuing his own research with the company, reports, "We have been collaborating for over a year now and this relationship has been mutually beneficial, in the sense that we have developed these new applications and methodologies and they have helped us with our data gathering and interpretation."

■ UT Austin | Portugal at the “Exploring Networks” symposium

The University of Porto has celebrated the 30th anniversary of its first courses in Biochemistry by organizing a cycle of multidisciplinary events coordinated by the School of Science and the Institute of Biomedics. This cycle included a one-day symposium entitled “Exploring Networks”, dedicated to the presentation of various projects that bridge health sciences and the arts. It took place May 2nd on the recently inaugurated campus of the Institute of Biomedics.

Professor Heitor Avelos, outreach director of the UT Austin-

Portugal program in digital media, and Nuno Martins, PhD student of the doctoral program in digital media under the UTAustin-Portugal flagship, both presented papers at this symposium. They were respectively entitled “The Stone and The Microphone: notes on humility, strategy and protagonism”, and “From Sharing to Collective Citizen Action: the contribution of new media in the appeal to the donation of bone marrow”.

More information on the “Exploring Networks” cycle can be found here: <http://bioq30.wordpress.com/>



Nuno Martins (Créditos da foto SAV-ICBAS)

Heitor Avelos (Créditos da foto SAV-ICBAS)

■ Sound Intern Arrives in Austin



Mário Jacinto arrived in Austin this month to begin an internship at the public radio station KUT. Jacinto is a master's student in Interactive Music and Sound Design at U.Porto. In addition to interning at KUT, he plans to explore some opportunities at local studios and sound design houses.

Part of UT's College of Communication, KUT's news department has innovated in bridging the older media of broadcast radio with new digital media distributed online. Mário will be working with a news team that covers state and local events and collaborates with other innovative news organizations like The Texas Tribune and StateImpact Texas.

■ Luís Leite of U. Porto Visits Austin

Luís Leite, a doctoral student at FEUP, arrived in Austin on April 28 to conduct an exploratory visit and present research at the ACM SIGCHI Conference on Human Factors in Computing Systems. Leite's work focuses on virtual marionettes and the development of interfaces and techniques for real-time puppet animation, and relates to multiple disciplines including computer animation, human interface design, and performance. He reported that his time in Austin was “an enriching experience,” consisting of a variety of academic, cultural, and social activities.



Visiting researcher Pedro Resende, Luís Leite and Tiago Fernandes

Leite, who is also known professionally as Grifu, met with Radio-TV-Film faculty member Ben Bays, who teaches a variety of digital animation-related topics, including motion graphics, visual effects, and computer animation and 3D modeling. He also conversed at length with local traditional animator Jeanne Stern, who uses puppetry in her animations and has worked

extensively with the UT Austin-Portugal program. Additionally, Leite met with Program Director Sharon Strover and UT documentary faculty member Nancy Schiesari and toured the Radio-TV-Film's production facilities. He was also able to take advantage of several University and city events including the Ears, Eyes, + Feet festival, a cross-disciplinary recital by UT's electronic music, transmedia, and modern dance programs, a UT Master Class with renowned filmmaker Robert Rodriguez, and Austin's Pecan Street Festival.

During the last few days of his visit, Leite participated in one of the top international Human-Computer Interaction conferences, sponsored by the Association for Computing Machinery's Special Interest Group on Computer Human Interaction. He and University of Porto professor Verónica Orvalho presented ongoing research on the use of the body as a puppetry controller, animating a virtual silhouette in real time.

■ UTEN CORNER

2nd UTEN PORTUGAL WORKSHOP (in collaboration with CMU Portugal)

The University of Algarve hosted the second UTEN Workshop 2012, which was organized in collaboration with CMU Portugal on 21st and 22nd May.

Under the theme "Startup funding: Streamlining venture capitalists and business angels", this workshop welcomed 20 participants from both the Technology Transfer Offices and the Industry fields, who intended to learn and discuss how to successfully get venture funding in the US.

The Rector of the University of Algarve, João Guerreiro, and a representative from the Portuguese Foundation for Science and Technology, Vasco Varela, opened the workshop.

The workshop welcomed a renowned expert from Carnegie Mellon University (CMU), Robert Unetich, who gave a keynote speech: "Venture Capital in the U.S., Getting Started" and had independent meetings with company representatives. João Correia de Matos (InovCapital) explained future perspectives for Venture Capital in Portugal. João Martins (MuchBETA), Luke Murray and Sofia Pessanha (Actualsun), and Diamantino Lopes (Metable) described their experience on the road to obtain investment.



Robert M. Unetich (Carnegie Mellon University)



Diamantino Lopes (Metable) and João Martins (MuchBETA)

■ Events

- **Digital Media Summer Institute**
June-July, 2012, Lisbon and Porto

More information at:
http://utaustinportugal.org/news/digital_media_summer_institute_2012

- **Mathematics Summer School and Workshop 2012**
July 2-13, 2012, UNL, Lisbon

The CoLab Mathematics Summer School and Workshop is a yearly event that aims at bringing together Ph.D. students and junior faculty with well-known experts in several areas of mathematics.

More information at:
<http://math.utaustinportugal.org/summer2012/index.phtml>

■ Ongoing Opportunities

- **Fraunhofer Portugal Challenge 2012**

The 3rd edition of the Fraunhofer Portugal Challenge has just kicked-off! Fraunhofer is looking for ideas of "Practical Utility", based on MSc or PhD thesis in the areas of ICT, Multimedia and other related sciences.

Deadline: 31st July.

More information at:
http://www.challenge.fraunhofer.pt/en/the_challenge.html

- **Advanced Digital Media Mobility Awards**

Awards for Digital Media faculty and student travel to UT Austin.

For more information please visit:
<http://utaustinportugal.org/calls/dm-travel>

Useful links

www.utaustinportugal.org

www.fct.mctes.pt

www.utexas.edu

www.ic2.org

www.ati.utexas.edu

www.austin-chamber.org

<http://colab.ic2.utexas.edu/dm/>

www.utenportugal.org

We want to hear from you! Want to share your doubts and concerns about something you read? Want to see other topics featured in next month's newsletter? Want to contribute with articles or art? Please send all your feedback to carolina.enes@fct.unl.pt.