Graduate Program

Master's Degree Program

The goal is to educate "originators" who will lead the global culture content business. The students perform the interdisciplinary research on fundamental and applied technology pertinent to CT. They plan culture contents and create content business model through projects and hands-on experiments.

Doctoral Degree Program

The students perform in-dept research and projects on fundamental and applied technology pertinent to CT. The research and industry projects will be closely connected to supply Ph.D.'s to culture industry and education as professors and researchers upon completion of the program.

2. Research and Creation

Graduate School of Culture Technology is divided by 3 keywords and 5 research Field to perform various interdisciplinary research. Master and Ph.D. students select their major research area and conduct intensified research and education.

■ Education
❏ Content Technology

The content industry is expanding its domain into the digital realm due to the rapid development of various technologies. Old analog contents are now transformed into a digital form. These contents provide the public with new learning and leisure experiences that can be enjoyed in theaters, on TV, on mobile or wearable devices. The representative categories of digital content technology studied in GSCT include visual content technology that deals with techniques for image synthesis, manipulation, and visual effects; audio technology that deals with the creation, modification, and understanding of sound and audio; virtual reality (VR) technology that explores the creation of the virtual environments and delivery of immersive experiences; various genres of serious and movement-based games; and studies on digital storytelling and format.

❏ Cultural Science

Data is the starting point for the scientific endeavor for understanding natural and technological systems. Thanks to advances in digital technology, data from cultural system are being recorded in an unprecedented scale, and increasingly evolving into one where we can observe the interactions between creators and consumers. In an interdisciplinary effort encompassing natural science, social science, and engineering, GSCT is focused on shaping the future form of culture and developing useful data-based applications. The topics for study include identification of the future creative landscape via analysis of the networks of creators and consumers, construction of futuristic narrative devices through an understanding of the dynamics of storytelling, and mining of cultural preferences from social media data.

❏ Interaction and Design Computing

Recently, emerging technologies have extended human experience by linking the physical space with its corresponding virtual space, augmenting space/place/objects with additional immersive content or related information, and allowing bi-directional interaction in the dual physical-virtual spaces. Accordingly, smart space extends human's intellectual abilities and social abilities, as well as physical abilities, in various ways. In GSCT, we study various 2D/3D interactions in smart space for culture industries (e.g. education, games, movies, digi-log cultural heritage, tourism, exhibitions, performances, etc.) using the findings in the areas of computational perception, virtual reality, augmented reality and augmented human.

Design Computing or Computational Design explores design domain, abstract concepts like the user experience(UX), cultural components, creativity, and challenging problems derived from ideated thoughts using computers. These explorations result in computer-based frameworks or systems contributing to the enhancement of calculability using algorithmic and/or heuristic computational methods.

■ R&D

❐ Visual Content Technology

To create hyper-realistic content in real-time and to provide the audience with immersive experience

❐ Sound & Music Technology

To enhance auditory experiences and musical activities by understanding, modeling, and generating audio content through computational approaches

❐ Interactive Technology

To provide various 2D/3D interactions in smart space by exploring integrated research in the areas of computational perception, human-centered experience design, virtual reality, augmented reality and augmented human

❐ Computational Design

To build mass customization systems while integrating cultural information which are the new frontier in both manufacturing and service industries

❐ Cultural Complexity Science

To decipher the complex dynamics of cultural systems and develop novel scientific methodologies for cultural industries