1. Graduate Program

Reasons for educating leaders

"21 century culture leader" is a pioneer, planner, designer, and producer who explores new cultural genre, develop new technology, and provide new business model, and present new theory and paradigm through creativity and profound knowledge in culture, science, and technology. The leaders will be educated to have excellence, flexibility, global sense, leadership and vision.

The leaders will be deployed in the culture industry and in education. The masters of science will primarily pursue their careers in the industry and Ph.D's as professors and researchers. Especially, fostering of marketing professionals and entrepreneurs in culture industry will contribute to globalization of culture industry in Korea.

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.

Content Creation Technology

- Planning production processes of culture contents distributed in various media
- Research on scientific and artistic understanding on media
- Research on digital storytelling and communication theory

Contents Planning and Digital Culture Theory

- Artistic experiments on contents, digital aesthetics, design experiments on interface
- Development of artistic presentation by exploiting media
- Humanities and sociological approach toward digital culture

Culture Technology Management and Policy

- General understanding of culture technology and policy
- Developing culture contents business strategies

2. Research and Creation

The Labs in CT are divided as follows.

❒ Visual Media Lab

The purpose of visual media lab is to develop visual effects and computer graphics technology and apply them to content production such as computer animation, movies, games and etc. Ultimately, it will be impossible to distinguish between the digital actors and digital world from the real counter parts. Specific research topics include simulation of natural phenomena, facial animation, character animation, and intuitive sketching interface.

❒ Experience Lab

Conventionally, HCI mainly dealt with technological, social, and philosophical problems arising in interactions between virtual environments and human. However, due to the evolution toward ubiquitous computing environment, HCI expands its focus on more general and macroscopic areas. The research in the EXP lab includes interaction between ever-evolving digital space and human, new application of digital media, and presentation exploiting digital technology. The area consists of computer game, wearable computing, and application of virtual reality. The projects are research on cognition process in the digital space based on interactive media art, media art theory, and systematic planning of scientific exhibition.

❒ Digital Media and Contents Lab

Culture connects people through communication. Digital media as a communication tool and contents as communication medium are vital factors in culture industry. The goal is to produce quality contents, develop technologies in digital media and ubiquitous/online environments, and provide various business models. Research includes media interaction/interface design, coupling of contents and products for future services, designs in the field of web, animation, and games. The specific fields consist of media interaction design, digital entertainment, culture content specialization, animation, contents design, and business model.

❒ Digital Storytelling and Cognition Lab

The story and storytelling technology are applied in various areas in entertainment and business with the progress in digital technology. The story and storytelling technology requires integral research beyond media boundaries. It is essential to constantly provide high quality story and there is need for a systematic research on various communication activities in cyber space. The research includes story source mining, story developing system, language, communication, storytelling related to human computer interactions. Main topics consist of story modeling, story design, new storytelling media, story developing & valuation system, language & text analysis, and digital communication.

❒ Cultural Management and Policy Lab

The purpose is to develop creative business models to increase the market share of new culture contents through the analysis and forecast of government policy regarding culture industry. Also through the analysis of culture industry market, students find ways to improve, invest and introduce culture technology content to the investors and help find business strategies. The lab will be complimentary to other six labs by performing feasibility test on the contents developed by other labs and providing business solutions. The research includes CT business model development, CT consumer research, CT market research & simulation, CT industry policy and regulation analysis, economics of culture and culture industry.

❒ Creative Physical Interaction Lab

The research includes basic technology for robot behavior, personality and appearance design, basic vision technology, voice recognition, cognitive intelligence, emotion generation, robot intention, emotion and expression, sound, and motion creation. As the paradigm regarding robots shifts from factory automation tools to companions in life, human and robot interaction becomes crucial in CT. In order for robots and humans to coexist it is essential to study cognitive mutual interaction technology, emotional mutual interaction technology and user friendly and practical design as well as performance and cultural event planning using robots. The goal is to make digital contents by creating physical interface device for dancing robot performance and stage automation enabling digital interaction.