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INNOVATIVE TECHNOLOGIES FOR JAPAN'S AGING  
SOCIETY 2 credits (Fall)

高齢化社会日本のための革新的技術 2単位(秋学期)

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**Course Description/Objectives/Teaching Method/Intended Learning Outcome:**

This course introduces innovative ways to use technology in developing products and services for older adults. Japan's society is rapidly aging making it a necessity to address the special needs and requirements of older adults in many areas of everyday life such as Transportation, Communication, Housing or at Work. The course focuses on the challenges of population aging for the Japanese society and how technology can be used to promote health and well-being in older age. Using practical examples and discussions students will look into innovative ways to address the challenges of an aging population.

**Course Plan:**

- 1 Introduction: A short Introduction to Technologies for an Aging Society
  - 2 Population Trends in Japan
  - 3 Work as key to longevity
  - 4 Age related changes: perception
  - 5 Age related changes: cognition, movement control
  - 6 Design for aging
  - 7 Mobility and Transportation
  - 8 Robotic Technologies
  - 9 Health Care Technologies; Health monitoring
  - 10 Aging in Place
  - 11 PechaKucha Presentation
  - 12 Challenges for interactive, intelligent technologies
  - 13 Learning and Creativity
- Other 2 Home assignments reviewing the content of the class
- 1 Take home exam

**Method of Evaluation:**

1. Take Home Exam (30%)
2. Assignments (20%)
3. PechaKucha Presentation (20%)
4. Peer Feedback for presentation (10%)
3. Attendance (Google Form) (30%)

**Textbooks:**

Fisk, A. D., Rogers, W. A., Neil Charness, N., Czaja, Sharit, J. (2009), Designing for Older Adults: Principles and Creative Human Factors Approaches, 2nd edition, CRC Press  
Salvendy, G. (2012). Handbook of Human Factors and Ergonomics. Hoboken, NJ: Wiley.

**Reference Books:**

Lesnoff-Caravaglia, G. (2007). Gerontechnology: Growing old in a technological society. Charles C. Thomas Publisher: Springfield.

Minichiello V. & Coulson, . (2006). Contemporary issues in gerontechnology: Promoting positive ageing. Routledge: London.

**Lecturer's Comments to Students:**

This course will be delivered through recorded online lectures and weekly online meetings that are voluntary.

**Questions/Comments:**

If you have any questions please send me an E-mail (waniek@z5.keio.jp)