

Theme: Ergonomics and Human Safety

About the training

In the present day, human factors and anthropometry play an important role in consumer product design, clothing design, office space design and interior design where statistical data about the distribution of body anatomy and dimensions in the population are used to optimize the form of the products. Human factors involves the study of all aspects of the way humans relate to the world around them, with an aim of improving operational performance and safety through life costs and/or adoption through improvement in the experience of the end user. *Usernomics* takes usability and ergonomics to a higher level of effectiveness and accountability. We can research, design, evaluate and test products or work environments to be more useful, usable, safe and satisfying.. The implications of this for product design are subtle, but important. It helps one to assess and determine abilities and needs for designing products, homes, and environments to make working and living space safe and simple; particularly for children, adults, and elderly population who are normal or disabled.

Home Science Education serves in grooming the students as change agents in providing quality environment for people through application of Ergonomics in interior space design, clothing design and products used for daily and special needs. Of late, due to rapid changes in the consumer environment, there are immense numbers of choices available to the consumer. In reality, the consumer is drowned in choices and experiences dilemma in selecting the 'one' that suits to his spatial, functional and economic needs. In addition, people with special needs such as the physically challenged are also being targeted in the design industry to help them live in comfort and self sustenance. The products and environmental needs of regular population in special conditions such as in pregnancy, lactation, infant care, child care etc also need examination for its appropriateness of design in meeting their needs.

The faculty of Home Science provides an expanse of Interior and Product Design courses, Apparel Design and Child-care Education programmes. Each of these disciplines has to make progress in the application of ergonomics for the comprehensive needs of regular and disabled population. This necessitates an advanced faculty training in order to design and evaluate products for further modifications, to identify faculty as ergonomic design counselors and to make them aware of the latest advancements in ergonomics and product design.

Objectives

- To gain insights on the human approach to designing spaces for productive and nurturing environments
- To examine needs of children, adult, elderly and population with physical and visual disabilities and a subsequent re-designing of their living environment.
- To get up-to-date with advanced ergonomic principles and safety issues in functional products and other accessories
- To apply ergonomic principles to design and evaluate products with respect to work environment and usefulness to the special needs of different age groups and gender.
- To assess and design functional clothing for various occupational and disabled population.

To achieve the above objectives, this advanced training is proposed for 21 days. The themes to be covered under this programme include:

Functional Space for special needs

Spatial needs of adults, children, geriatric and physically and visually challenged population requires special attention due to different types of body, space and functioning capacities. This calls for an assessment and planning based on ergonomic principles.

Productive and nurturing environments

Ergonomics as a science strives to bridge the gap between man and his surroundings. The knowledge gained in this endeavor is most commonly applied in the workplace setting. It is thought that by applying ergonomic principles to the design of the workplace and the nurturing environment, greater functionality can be achieved, yielding higher productivity and lower incidence of worker injury

Consumer products: Needs, issues and design guidelines

Available market products for all types of consumers need to be analyzed for safety and utility in terms of texture, size, hand grips, materials and user compatibility. This demands the attention of ergonomists to design suitable user-friendly products especially on safe products for all.

Child-care environment: issues and challenges

The issues involved in child-care environments as per their age groups would be analyzed against growth with a focus on physical and cognitive development in order to satisfy their environmental needs via metabolic comfort, space convenience, visibility in play, and sanitation for health through use of ergonomics in interior design.

Environments for children

This theme covers issues of children; Hyper Active children who needs special attention for fulfilling their routine activities and special functional needs. The scope of improving their conditions through ergonomic approach is highlighted.

Assistive technologies for special population

Impaired hearing, sick and physically challenged geriatric population need special assistive technologies due to their limitations of body, reach and capabilities. Functionality and design of such products would be analyzed.

Functional design in clothing

The kind of occupation guides the design and type of clothing one wears. The topic covers clothing design guidelines for various occupations.

Protective factor in clothing & functionality assessment

The various risks and hazards in different occupational environments necessitate protective clothing as a basic requirement. The content in this topic focuses on the design principles and guidelines for such protective clothing and discusses its assessment methods.

Clothing and mobility

Athletes and sportsmen need special kind of apparel that provide sufficient room for movement and enable mobility of the body parts. Such apparel needs exploration and evaluation for further improvement.

Home Science in Forefront

Recognizing the specialized services rendered, during the past 16 years by CAS in ANGRAU, in the review meeting conducted at New Delhi, the ICAR elevated the status of Centre of Advanced Faculty Training – Foods & Nutrition to Centre of Advanced Faculty Training – Home Science (CAFT) in the month of May, 2010 with redefined mandate to serve as a national resource and training centre for five disciplines of Home Science. The CAFT – Home Science, Hyderabad is the only centre of its kind in India, in order to cover the five disciplines of Home Science, viz; Foods and Nutrition, Human Development and Family Studies, Family Resource Management, Apparel & Textiles and Home Science Extension and Communication. Faculty of Home Science in ANGRAU has extended advanced trainings to the faculty of all the State Agricultural Universities for curriculum up gradation and strengthening of teaching and evaluation at UG and PG level.. Also, it has been the National resource center for dissemination of nutrition information.

Host Faculty:

The Department of Resource Management and Consumer Sciences, College of Home Science, ANGR Agricultural university, Hyderabad that is known for organizing advanced trainings for 21 days in the areas of consumer issues, computer aided design application for Interior and product design, Residential and Commercial Interior Design, Visual presentations techniques. The training on “Advances in Ergonomics Research and product design – Application to Interior space and functional needs of Indian population” will be organized by this Department in close co-ordination of well trained faculty members of Apparel and Textiles, Human Development and Family Studies.

Invitation to Participants

ANGRAU extends invitation to faculty members of SAU's, ICAR institutes, ICAR KVK's and other associates in the field of Textiles and Apparel Design, Human Development and Family Studies, Resource Management and Consumer Sciences, Family Resource Management, Home Science Extension and Communication Management and other related fields especially in the cadre of Assistant and Associate Professor to be the participants. Free boarding and lodging facilities will be provided only to faculty of State Agricultural University as per the guidelines of ICAR. Accommodation will be in a decent guest house, accessible to Railway/Bus station/Airport. Pre-request is necessary for any accompanying members. Boarding and lodging charges will be extra.

Nomination form can be downloaded from www.angrau.net. Last date for submission of duly filled in **Nomination Form** is 31st December 2011

Course Director: Dr. Mahalakshmi V.Reddy

Co-Directors: Dr.D.Anitha & Dr.Mayuri

Phone Contact: 040-23244058-221,211,213,222 Fax 040-23230781

Mobile Contact:98490-47906, 93469-88886, 91775-32608

Email:cafhthscangrau@gmail.com

NOMINATION FORM

1. Full name (in block letter) :
2. Designation :
3. Present employer and address :
4. Address for further correspondence:
(In block letters) (Give telegraphic address,
Fax No., Landline and Mobile Phone No. and e-mail address)
5. Permanent address
6. Date of Birth
7. Sex : Male/Female
8. Marital status: Married/Unmarried :
9. Academic record

Examination Subjects main/ Year of Class ranks, University/ Other
passed subsidiary passing distinctions institution
information

Bachelor's degree
Master's degree
Ph.D Degree
Any other degree

10. Professional Experience and No of Years
Teaching : ____ Research: ____ Extension: ____ Administration: ____
11. Posts held in past 5 years:
Post Organization Period Nature of work
12. Current research areas of interest & major field of specialization
13. Number of Publications
A. Research papers : ...B. popular articles : ...C. Books : ...D. Manual /others :
14. Number of Seminar, Summer/Winter School/Short Course, etc.
during the previous years under ICAR/Other Organizations :
15. Accommodation required: Yes:____ No:____
16. SBI D D/BC for: Rs 200/- drawn in favour Director,CAFT-H.Sc to be enclosed along with application

Date..... Signature of the Applicant
Place.....

Recommendations of forwarding Institute
Date..... Signature
Place.....

Nomination form may be duly filled and sent to

Dr. Mahalakshmi V. Reddy

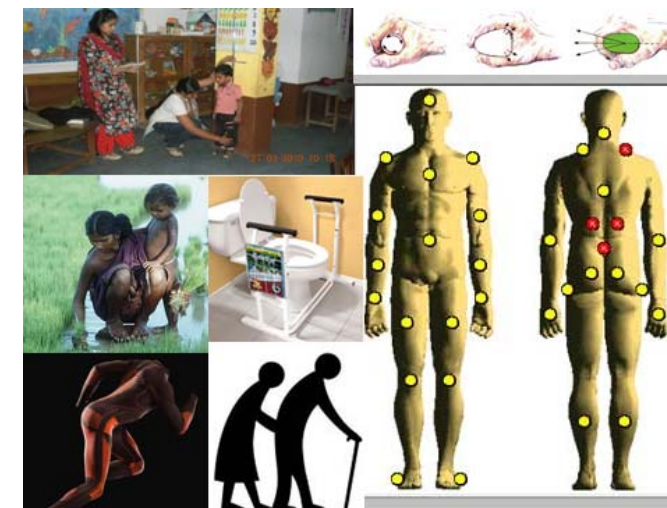
Course Director

Department of Resource Management and Consumer Sciences

College of Home Science, ANGRAU

Saifabad, Hyderabad – 500004

ADVANCES IN ERGONOMICS RESEARCH AND PRODUCT DESIGN – APPLICATION TO INTERIOR SPACE AND FUNCTIONAL NEEDS OF INDIAN POPULATION



Course Director

Dr. Mahalakshmi V.Reddy

Co-Directors

Dr.D.Anitha & Dr.K.Mayuri

Centre of Advanced Faculty Training

Acharya N.G. Ranga Agricultural University

College of Home Science

Saifabad, Hyderabad – 500004

1st to 21st, February 2012

**Venue: Post Graduate and Research Center,
ANGRAU, Rajendranagar, Hyderabad**