

SizeBR – Analysis of Brazilian Anthropometric Research

Flávio G. C. SABRÁ, Sergio F. BASTOS, Camila C. LAMARÃO, Patrícia M. DINIS, Cristiane de S. dos S. de CARVALHO, Rynaldo A. ROSA, Luiz Felipe FALCONERI, Evelyne F. N. P. CARVALHO
SENAI CETIQT, Rio de Janeiro, Brazil

Keywords: Anthropometric Survey, 3D body scanning, system sizes, Clothing Modeling.

Abstract

Over those 10 years, according to the methodology was outlined and mature, the study of SENAI CETIQT went through several stages, from design and construction of projects preview, projects, testing preview, measurement and validation and final presentation of the project, the launch of SizeBR site, scheduled for August 2015. Since when has acquired the tools for manual measurements and conducted feasibility studies with the sample group composed of students and staff of the institution itself, through technical shift logistics and equipment for measurements in all regions of Brazil. The entire project has as main purpose to meet with assertiveness best production of the textile and clothing chain. The measurement activities have occurred in the five Brazilian regions, including the Federal District, a total of sixteen states measured, within these were surveyed twenty-eight cities. Because of the breadth of Brazil, the research team also determined that the cities to be surveyed should be applied to the largest incidence of consumption. All research aims to answer more property Chain Textile and Apparel, with age distribution targeting Suggested indicators and region, and thereby guide the textile industrial producers and clothing manufacturers in developing products to meet the user. Consequently, the adoption of search enables the assertiveness in the design process, development and distribution of products generated by the value chain, increasing assertiveness in the construction of models and clothing gradations in relation to standards bodies. With the implemented methodology, one step higher towards the anthropometric characteristics of the pattern of the Brazilian body was possible, SizeBR project. Between 2012 and 2014, as shown below SENAI CETIQT listed the main consumption centers spread across five main regions: South, Southeast, West Cento, northeast and north to start the first anthropometric scientific study through scanning technology at the national level, in order to contemplate the large size of Brazil.

	ANTHROPOMETRY RESEARCH		
	MEASUREMENTS		
	MALE	FEMALE	TOTAL
SOUTHEAST	2.453	3.985	6.438
SOUTH	440	850	1.290
MIDWEST	469	293	462
NORTHEAST	200	685	885
NORTH	283	617	900
TOTAL	3.545	6.430	9.975

Currently SizeBR project team, SENAI CETIQT, dedicated to the end of the statistical treatment of the data obtained and, is expected to finalize and National Research presentation in August 2015 for males and females between 18 and 65 years. As concrete results the following bodies for females were defined: rectangle, triangle, spoon and hourglass (within the hourglass shape even find subdivisions of upper and lower hourglass). In men set up the bodies: athletic, normal, full, pronounced abdomen and burly. In the statistic it was developed a neural network that enables (with the inclusion of some key measures) a person check your position within the bodies of the database, thereby creating an avatar that shows all your measurements. This tool was created in order to facilitate e-commerce, since the person can locate your measurements in anthropometric tables, can associate them to the provisions of clothes available in the market. This generating neural network avatar tool will be available in our SizeBR site. Aiming also a greater range of research, the team of Innovation Management, Studies and Research through the behavior and SENAI CETIQT Consumption line also present the results of research on the Brazilian consumer habits that has been applied in conjunction with measurements from those regions. For each center of consumption, depending on the population served, applied to statistical theory of sampling to define the number of Brazilians to be measured (international standard ISO 15535: 2012). Thus a specialized team of experts in design, engineering, anthropology, social sciences, electronics and ergonomics has been trained to go into the field perform automatic measurements and manuals and treat the images obtained by body scanners.