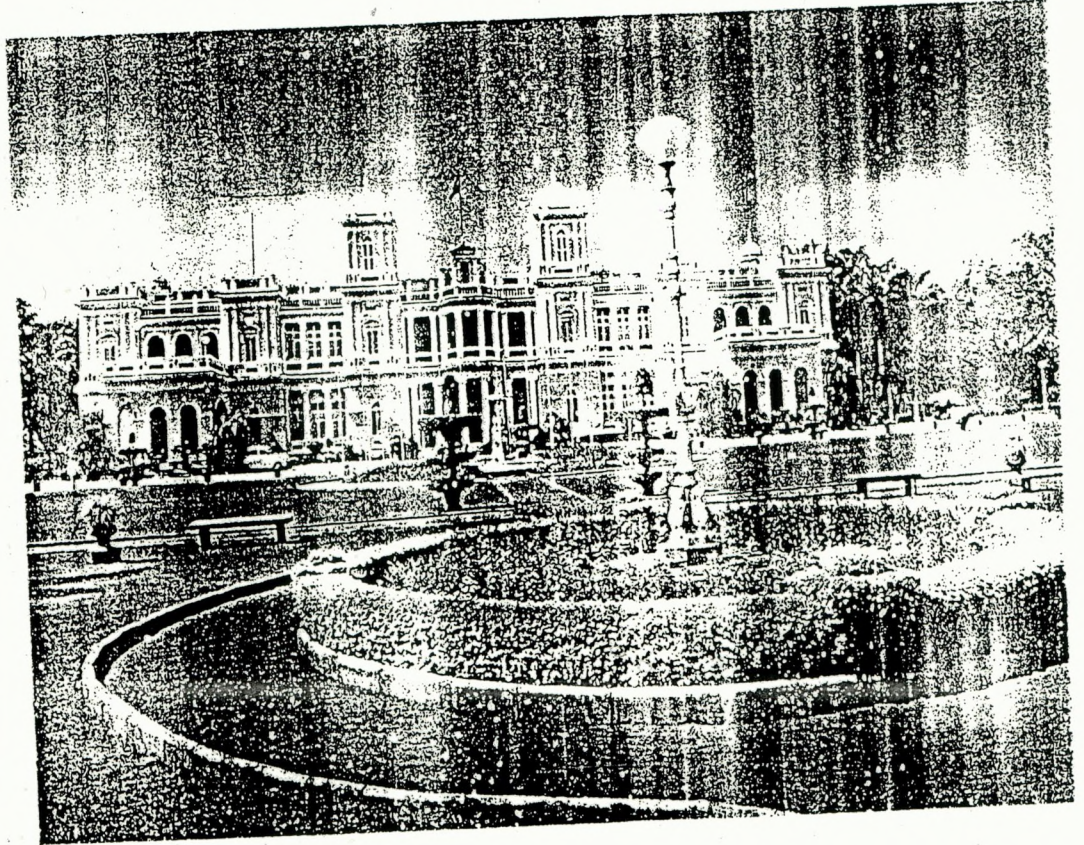


# Fifth International Conference

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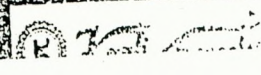
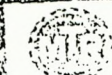


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# Safety and Quality control attributes of Fermented Street Foods consumed in Coimbatore District

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Street foods are defined as a wide range of ready-to-eat foods and beverages prepared and/or sold by vendors and hawkers, especially in streets and other similar public places. Street foods being quickly served are considered tasty, available at reasonable rates and offer a variety of traditional foods. They have become an attraction of many customers. But there is a concern about the adulteration and sanitary quality of street foods. In India, where street foods are gaining overwhelming momentum, equally strong efforts with broader dimensions are needed to explore the safety of the street food establishments. Hence the need for the present study.

The specific objectives of the present study are: To

- I. Study the consumption pattern of street foods among different sectors of population in Coimbatore district.
- II. Determine the proximate principle composition and safety of selected fermented and non-fermented street foods.
- III. Determine the HACCP (Hazard Analysis Critical Control Points) for selected street food items and
- IV. Observe the safety and hygiene practices followed by street vendors and to study the impact of food safety education

*Determination of the consumption pattern of street foods:* Initially a pilot study was carried out to elicit information on the consumption pattern of street foods by administering a questionnaire. Four groups of 100 respondents comprising of elementary and high school children, higher secondary school children, college students and adults were selected. Based on the results of the initial survey, commonly consumed fermented and non-fermented street foods were selected. The fermented foods selected include Idli, Dosai, Uthappam, Idiappam with Channa curry, Dahi vada and Katchayam. The non-fermented foods include Pani poori, Bhel poori, Pakoda, bhajji, Stick ice, Cheap candies, Cut fruits, Omelette, Groundnuts, seasoned Tapioca and Dal vada.

*Determination of the nutrients and safety of selected street foods:* All the fermented and non-fermented foods were collected from three different vendors and they were analyzed for their energy, protein and fat content using the standard procedures of NIN. All the samples were tested for the presence of commonly

occurring food borne pathogens namely coliform, *E.coli*, salmonella, shigella etc., and for various adulterants using the procedures of ISI. The HACCP evaluation of three food samples namely Plantain bhajji, Pani poori and Channa curry were carried out. In this analysis, food materials were collected at different stages in the preparation of these recipes and analyzed for microbial contamination.

*Evaluation of the hygienic practices adopted by the street food vendors:* A group of 24 street vendors were observed for a short time to find out the details on the personal hygiene, environmental cleanliness, waste disposal etc. using a check list.

## Consumption pattern of the street foods:

It was found out that among the 400 randomly selected respondents, 232 were males and 168 were females indicating that more males have access to street foods than the females. In all age groups, street foods were consumed for fun and taste mostly. The older age groups namely college goers (30 %) and adults (11 %) consumed street foods to spend time with friends and only 18 % of college goers and 22 % of adults consumed them due to sheer necessity. Around 70 % of elementary and high school children, higher secondary school children and college students considered street foods to be safe while 39 % of adults regarded them to be safe.

## Safety of fermented and non-fermented foods:

Results revealed the presence of non-permitted colours like orange-RN in Stick rice, brick powder in chilli powder, saccharine and Rhodamine B in cheap candies. The adulterant oils used in the preparation of fermented and non-fermented street foods include castor oil and mineral oil.

Results on microbial analysis revealed the presence of coliforms and *Bacillus cereus* in rice products. Presence of faecal coliforms indicated the relative inferior quality of street foods. The HACCP analysis revealed the presence of bacteria at all the stages. The products soon after preparation had low microbial count, but display of foods in the stall promoted growth of undestroyed spores deteriorating the quality of foods.

The hygienic practices adopted by all the