



INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI  
SHORT ABSTRACT OF THESIS

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Programme of Study : Ph.D.

Thesis Title: **Process-Product Characteristics of Refractance Window Dried Turmeric Powder and Golden Milk Products**

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**SHORT ABSTRACT**

The Ph.D. thesis targets the sensitivity and optimality of the novel refractance window drying (RWD) process for the drying of *Curcuma longa* and associated product development. The conducted research work has been addressed in the five phases of research namely comparative efficacy of RWD, tray and oven drying process for the drying of paste and sliced *Curcuma longa* samples; sensitivity and optimality of mylar film thickness, water bath temperature and drying time during RWD of *Curcuma longa* sliced sample; RSM based optimization of bath temperature, drying time and air velocity; NaFeEDTA and folic acid fortification of RW dried *Curcuma longa* powder and associated characterization and analysis; storage and sensory studies of fortified and non-fortified RW dried *Curcuma longa* powder and golden milk product system and nutritional and sensory analysis of RW dried Lakadong turmeric variety powder and golden milk product system.