



BULLETIN

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ITI TRANSFERS TECHNOLOGY FOR MAKING RICE CRACKERS

After several years of research on rice-based products, the Food Technology Section (FTS) of the ITI have been successful in developing the technology for the manufacture of rice crackers, at the request of a client. Two flavours, chicken and chocolate, have presently been formulated and the technology has been transferred to the client, a leading multinational company in the country.

The company, CIC Ltd. a dynamic organization, who have diversified their scope of business from paints to pharmaceuticals and chemicals have now ventured into agriculture, with its investment into the cultivation of special rice varieties for the domestic and export market. With this, the company displayed much interest in promoting the manufacture of new rice based products in Sri Lanka, particularly after an ITI presentation on “Opportunities for rice based products”, and solicited the assistance of ITI for this purpose. After some deliberations, rice crackers were selected as the product they were interested in marketing, with savoury chicken and sweet chocolate as the preferred flavours. After several laboratory trials, the researchers at the Food Technology Section of the ITI was able to develop a product to match their requirements.

Rice crackers are flat crispy snacks made with puffed rice grains attached to each other. Although seemingly



Pilot production of rice crackers

straightforward, much research is required to produce a satisfactory product, as crackers cannot be made with all varieties of rice. Trials carried out with different varieties revealed that varieties with low amylose content were necessary for the production of high quality rice crackers. Since the company has launched into the cultivation of speciality rice varieties, the supply of raw material posed no problem.

CIC however, did not have processing facilities and was not in a position to go into production immediately. ITI was able to step in and forge the necessary links with a subcontractor who had previously shown interest in purchasing the technology from ITI. The pilot production of rice crackers was carried out at a sub contractor’s facility under the supervision of the ITI scientists.

A batch of sweet and savoury rice crackers have been manufactured and issued to CIC Ltd., for test market trials from their sales outlets. A launch of this product will also held shortly.

For more details please contact

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Packaged products for market trial

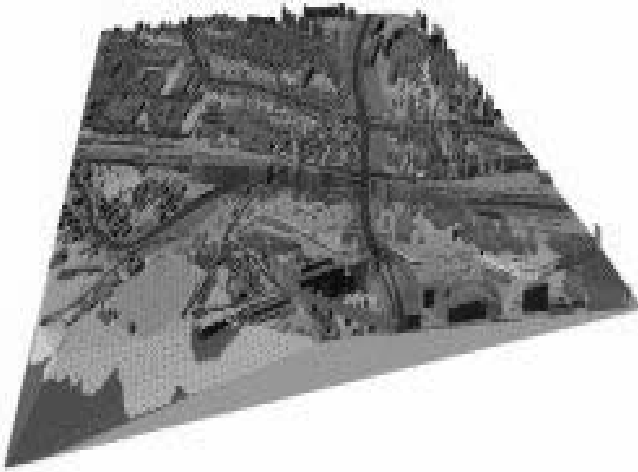
Our Mission

To provide demand driven scientific industrial R&D and internationally competitive technical services to catalyse rapid industrialisation for the benefit of the people of Sri Lanka

FACILITIES FOR NOISE MODELLING AT ITI

With the recent purchase of the IMMI Noise Modeling & Mapping software, ITI became the first institution in the South Asian region to acquire this sophisticated software. One of the main objectives of this purchase was to create a Noise Map for Colombo City.

The software will provide the necessary data to assist urban planners to control the increasing level of environmental noise in the Colombo city - a major environmental issue in the capital. This software facilitates road, rail and aircraft noise modelling and mapping in addition to mapping of city and industrial noise levels with the attractive features



of advance modeling. Identifying realistic noise reduction targets and improving land use are other important features of this.

With this facility, ITI will be in a position to provide an enhanced service to regulatory authorities with respect to noise assessment and prediction for major development activities such as the Highway construction projects, Airport development projects, Rail way line construction and Industrial park development projects as well as to medium scale developers in their construction projects.

The advanced features of the software represent noise mapping of acoustic data in a Cartographical format and visualizing this data by combination of the information with a Geographical Information system (GIS) enabling the correlation of different data sets.



The applications include:

- the provision of accurate statements of noise levels in a specific location
- providing noise trend data
- establishing exposure levels of a population
- for risk estimation purposes
- identifying pollution hotspots or quiet areas
- providing information on the effectiveness of noise pollution management schemes
- providing information that maybe required for management/legislative/policy changes
- facilitating Environment Impact Assessment (EIA) studies.

In brief, this software will greatly benefit the planning and decision making processes which are inherent in the development of a country.

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ADVERTISEMENT SPACE

Advertisements could be inserted in the ITI Bulletin at a cost of Rs. 2000/- for a 9 cm x 4 cm strip. For reservations please contact, Head, Information Services Centre,

Tel: 2698624, e-mail: dilmani@iti.lk

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Head, Information Services Centre, Tel: 2698624, e-mail: dilmani@iti.lk

ITI SCIENTISTS WIN PRESIDENTIAL AWARDS FOR RESEARCH

Dr. Shanthi Wilson, Head, Food Technology Section and Mr. Nihal Gunasekera, Head, Metrology Laboratory, were the recipients of Presidential Awards for Research, 2002. These awards of recognition are given to authors pursuing research in Sri Lankan institutions for their publications which have effectively appeared in international refereed, periodicals, figuring in the Science Citation Index. This year's awards were for the year 2002.

Dr. Wilson received her award for her share of authorship of the following publications

Combined Effect of Generally Regarded As Safe (GRAS) Compounds and *Trichoderma harzianum* on the Control of Postharvest Diseases of Rambutan, *Phytoparasitica* 30(1) 43-51, 2002. D. Sivakumar, R.S. Wilson Wijeratnam, R.L.C. Wijesundera and M. Abeyesekere.

Control of Postharvest Diseases of Rambutan Using Controlled Atmosphere Storage and Potassium Metabisulphite or *Trichoderma harzianum*, *Phytoparasitica* 30(4), 403-409, 2002. D. Sivakumar, R.S. Wilson Wijeratnam, R.L.C. Wijesundera, and M. Abeyesekere.

Control of postharvest diseases of rambutan using cinnamaldehyde, *Crop protection*, 21:847-852, 2002
D. Sivakumara, R.S. Wilson Wijeratnama, R.L.C. Wijesundera, M. Abeyesekere.

Effect of Ammonium Carbonate and Sodium Bicarbonate on Anthracnose of Papaya, *Phytoparasitica* 30(5): 486-492, 2002. D. Sivakumar, N.K. Hewarathgamagae, R.S. Wilson Wijeratnam and R.L.C. Wijesundera.

This award was also received by Dr. Malinee Abeyesekere a recently retired senior researcher of the Institute.

Mr. Nihal Gunasekera's award was his share of authorship in the following publication.

Spectroscopic studies of Temperature induced valence transition on $\text{EuNi}_x(\text{Si}_{1-x}\text{Ge}_x)_2$ around $\text{Eu } 3d-4f$, $4d-4f$ and $\text{Ni } 2p-3d$ excitation regions. *Journal of the Physical Society of Japan*. 71 (1), 148-155, 2002

Warm congratulations to Dr. Wilson, Dr. Abeyesekera and Mr. Gunasekera for their excellence in research.

NEW E-RESOURCES AND FACILITIES AT THE ISC

Information Services Centre (ISC) of the ITI, the only library in the country to obtain ISO 9001:2000 certification, has introduced many new e-facilities and resources to the science and technology community in the country. It is also embarking on a new library system, designed by the Sri Lanka Institute of Information Technology, encompassing several new facilities whereby whole articles will be available electronically to the users in addition to the electronic catalogue. Access to Science Direct database is one of the major assets available at the ISC. Now the full text articles of the journals listed under these categories are available at the ISC.

- Agriculture and Biological Science
- Materials Science
- Chemistry
- Pharmacology, Toxicology & Pharmaceuticals

To facilitate access to this and other resources available, the ISC has commenced a separate membership for electronic resources, (E-Membership), in addition to the present membership schemes in operation. This membership includes the following:

- Articles from Science Direct
- Articles available in the ITI database
- Articles resulting from literature searches carried out by ITI staff



The Electronic membership will be Rs. 1000/- for which articles up to 100 pages will be electronically mailed to the user. For those who cannot make use of the e-mail system, any article requested from browsing the databases, will be posted to the user at a cost of Rs. 10/- per page. Literature searches will also be undertaken, and the charges given at the time of request. Alternatively, users are welcome to call over to the centre and browse the database for which a charge of Rs.50/- per half hour will be levied. Print outs will be charged at a rate of Rs. 4/- and Rs.5/- for single side and double side respectively.

Other than the Science Direct database, ISC has access to many other databases which contain full text articles to patents, and also statistical data.

For more information, please contact: Head, Information Services Centre, e-mail: dilmani@iti.lk

MUSHROOM DAY AT ITI

Conducted by the the Food Technology Section of the ITI
On 19th October 2007 at the ITI Auditorium.



What you will learn:

- Cultivation of mushrooms
- Hygiene and sanitation requirements for the processing of mushrooms
- Disease and pest management of mushrooms
- Product labeling regulations

What you will see a display of mushroom based products developed at ITI

Target group	- Mushroom growers and potential entrepreneurs
Course fee	- Rs. 1500/- + 15% VAT (Inclusive of course materials and refreshments)
Course medium	- Sinhala

For registration and further details

Tel: 2693807-9, Ext: 241 , J.D.Madanayake or Udyangani Binduhewa

e-mail: chanaki@iti.lk

EQUIPMENT CORNER

Carbon sulphur analyzer

The Materials Laboratory has purchased a new Carbon Sulphur analyzer which can be used for industrial purposes for the the simultaneous determination of carbon and sulphur (steel, cast iron, copper, alloys) in mettalic materials, cement, coal, rubber, plastics soil etc.

The main parts of the anlyser consist of:

- Induction furnace
- Gas flow system
- Solid state infrared detectors
- Micro controller

For inquiries please contact : **Head, Materials Laboratory**
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