



Services offered by the TPIC

University of Sri Jayewardenepura



**Standardization of Sri Lankan Timber and Furniture by USJ – MOU with
Ministry of Rattan, Brass, Pottery, Furniture, and Rural Industrial Promotion**

The building is constructed following **the green building guidelines.**

Introducing Sri Lankan timber and timber - based products to high - end global markets.

A fully-fledged self-sustainable center, under Center for Sustainability to support the timber sector.

To be a premier research lab for timber testing providing timber testing facilities.

Enhance and develop new innovations and inventions in timber sector.



Key activities

- **Process innovation, value chain enhancement and wood waste utilization**
- **Cleaner Production technologies**

Intended outcomes

- **Enhance high-end export market for Sri Lankan timber & timber-based product**
- **Increase the contribution to GDP by timber & timber-based products**
- **Increase Value-added timber product exports for the economic growth**

Our Team



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The Scope – Technical Assistance to Industry Stakeholders

New timber
product
innovators

Timber
product
manufactures

Gov.
authorities

Timber
product
importers

Sawn timber
timber
importers

Testing Services



Density
Shrinkage and Swelling
Durability
Biodeterioration
Anatomy
Age identification
Fire tests



Seasoning
Preservation
Calorific value
Energy density test

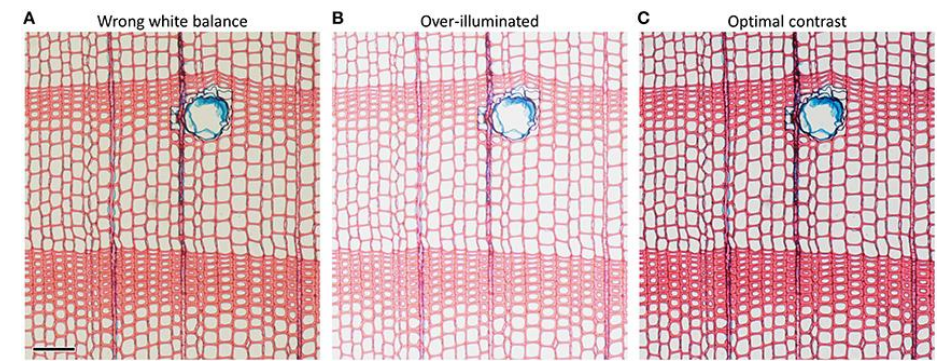
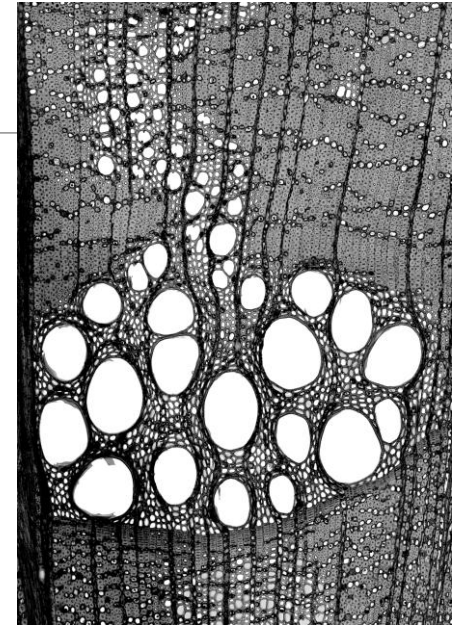


Furniture
Plywood
Particle board
MDF

**Laboratory accreditation – OECD series on
Principles of
GLP and compliance monitoring**

Identification/authentication of timber species

- Anatomical characteristics of wood
- Microscopic analysis of anatomical features



Testing Strength Properties

- **Equipment: UTM**
- Tensile, compression, and bending tests according to international standards
- ISO 527, ISO 6259, ISO 9967, ISO 9969, ASTM D 638.

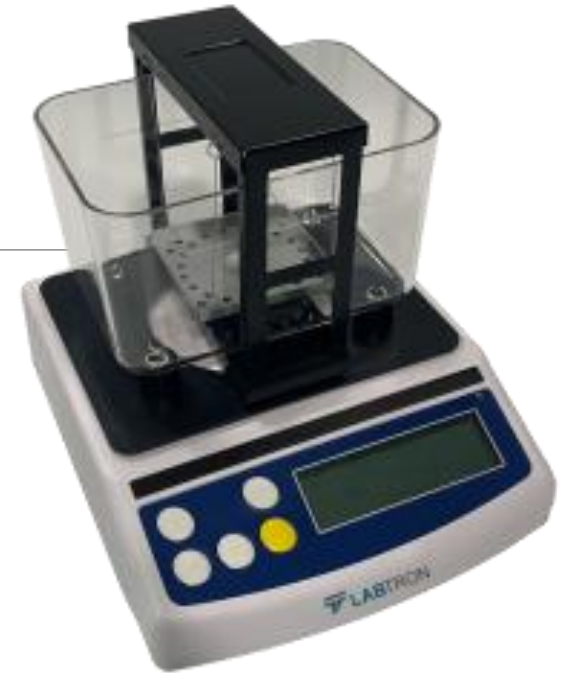


Other physical properties of wood

Determination of density for physical and mechanical tests
Wood density: ISO 13061-2:2014

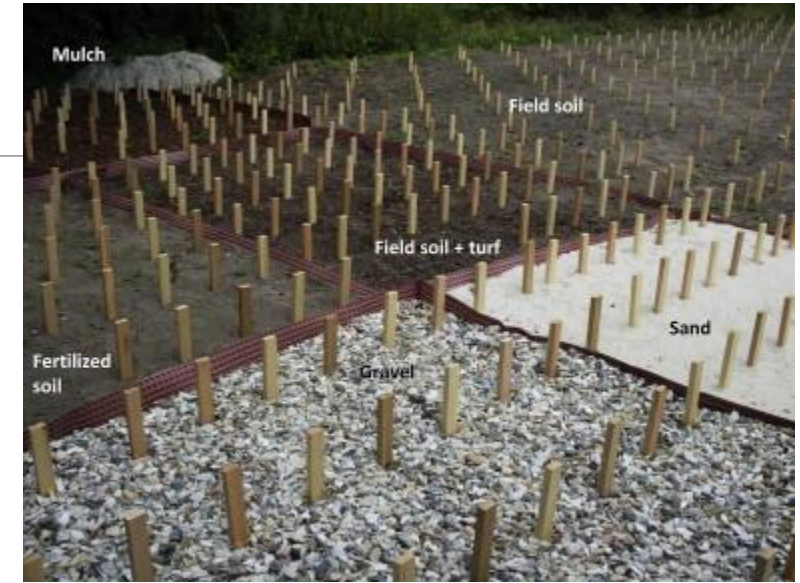
Shrinkage: Determination of radial and tangential shrinkage
ISO 13061-13:2016

Moisture content



Testing Durability

- Graveyard test/Accelerated decay test
- BS EN 350
- Durability tests conducted using biological agents
- Chemical preservatives and depth of penetration



Fuelwood properties

- Wood/biomass pellets, Briquettes
- Calorific value, density, ash content and moisture content



Plywood tests

Bureau of Indian Standards, 1983. Methods Of Test For Plywood [CED 20: Wood And Other Ligno Cellulosic Products]. 2nd ed. New Delhi.

The following parameters are tested on Plywood, according to Indian Standards

- Part 1 Determination of density and moisture content (second revision)
- Part 2 Determination of resistance to dry heat (second revision)
- Part 3 Determination of fire resistance (second revision)
- Part 4 Determination of glue shear strength (second revision)
- Part 5 Test for adhesion of plies (second revision)
- Part 6 Determination of water resistance (second revision)
- Part 7 Mycological test (second revision)
- Part 8 Determination of pH value (second revision)
- Part 9 Determination of tensile strength (second revision)
- Part 10 Determination of compressive strength (second revision)
- Part 11 Determination of static bending strength (second revision)
- Part 12 Determination of scarf joint strength (second revision)
- Part 13 Determination of panel shear strength (second revision)
- Part 14 Determination of plate shear strength (second revision)
- Part 15 Central loading of plate test (second revision)
- Part 16 Vibration of plywood plate test (second revision)
- Part 17 Long time loading test of plywood strips (second revision)
- Part 18 Impact resistance test (second revision)
- Part 19 Determination of nails and screw holding power (second revision)
- Part 20 Acidity and alkalinity resistance test (second revision)



Ongoing Developments

Manual to assess visual defects of imported construction timber

SLS 1170 Part 01 Part 02 Part 03 Part 04

Code of practice on identification and grading of imported construction timber

Grading, Marking and Guidance on usage Nomenclature Identification and
General Information Properties
Documentation for Grading



Knowledge dissemination

01

- M.Sc. Program in Environmental Management & Forestry since 1983

02

- B.Sc. Program in Forestry & Environmental Science since 1996

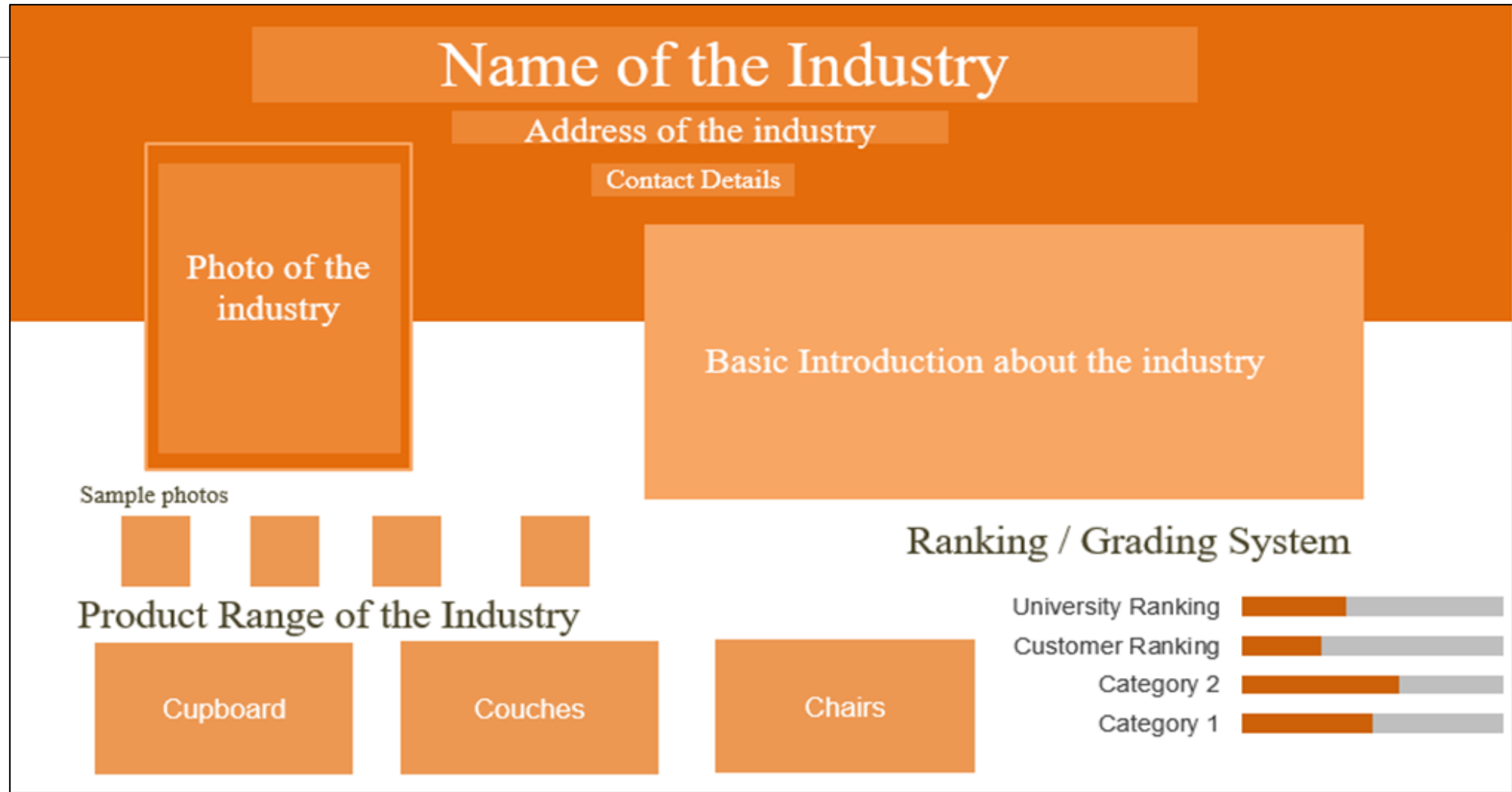
03

- Professional development/capacity building courses and training programs

04

- Collaborative Research & Development in timber technology

Developing a Timber Product Marketing Platform for Small-scale wood workers in Moratuwa



In a Nutshell...





For inquiries ..

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