

# “Sustainable Waste Management Practices”

TESS Knowledge Dissemination Workshop, SME Exhibition



**Erasmus+**  
**CBHE** Capacity Building in  
Higher Education



University of  
Vocational Technology



Organized by

University of Vocational Technology

in Collaboration with

Techno-Economic-Societal Sustainable Development Training in Sri Lanka (TESS)

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## Message from Vice Chancellor



I extend my sincere gratitude and appreciation to all the esteemed participants, exhibitors, and attendees of the "University of Vocational Technology Industry Exhibition on Waste Management and Circular Economy with Knowledge Dissemination 2023".

In the face of global challenges related to environmental conservation and resource depletion, our commitment to sustainable practices becomes more crucial than ever. This exhibition aligns with our university's dedication to fostering awareness, education, and actionable solutions for a more sustainable future. Waste management stands at the forefront of environmental stewardship. As we witness increasing urbanization and industrialization, it is imperative for us, as a leading higher education institution, to engage in meaningful dialogue and collaboration with industry experts, innovators, and advocates in the field of waste management and related technological applications.

This exhibition serves as a dynamic platform for knowledge exchange, sustainable technologies and practices, and research outcomes that address the facets of waste management and circular economy. The diverse range of exhibitors, experts, and stakeholders assembled here represents a collaborative effort to explore, learn, and contribute to the discourse on sustainability.

I extend my deepest appreciation to the organizers, exhibitors, and participants for their dedication to making this event a reality. Your collective efforts in advancing the conversation on waste management and circular economy focus seamlessly with our green university concept of being at the forefront of positive change. As we immerse ourselves in the wealth of knowledge and innovation on display, let us reflect on our shared responsibility to create a more sustainable and resilient future. May the ideas exchanged and collaborations formed during this exhibition pave the way for impactful initiatives that transcend our university and contribute to a global movement for sustainability.

It is commendable that professional and academic excellence and originality were demonstrated by all of the organizers who actively participated in this unforgettable event.

Thank you for your participation, engagement, and dedication to the ideals of sustainability. Together, we have the power to make a lasting difference.

Warm regards,

Prof. C. Mahesh Edirisinghe

Vice Chancellor

University of Vocational Technology

## **Message from TESS Coordinator (University of Vocational Technology UoVT)**

I am delighted to extend a warm welcome to each one of you as a partner university of the Techno-Economic-Societal Sustainable (TESS) Development Training Project team. This event represents a convergence of knowledge, industry expertise, and collaborative dialogue aimed at advancing sustainable development in our ever-changing world. The TESS Knowledge Dissemination Workshop is a unique platform for our students, faculty, and industry partners to share insights gained from the TESS Project. It serves as a showcase of the innovative solutions our students have developed but also provides an opportunity for knowledge exchange and collaboration. The SME Exhibition is a testament to the fruitful collaborations between our students and small and medium-sized enterprises (SMEs). It reflects the avenues for inspirational work for innovative culture establishing socio economic and environmental sustainability for our country.

Each project on display reflects not only technical prowess but also a deep understanding of the economic and societal implications of their innovations. I would like to express my sincere gratitude to the industry partners, and the students for their unwavering commitment to the TESS Development Training Project. Your collaborative efforts have not only enriched the learning experience but have also contributed to the broader discourse on sustainable development. Thank you for your active participation, and we look forward to witnessing the vibrant exchange of ideas that will undoubtedly characterize this TESS Knowledge Dissemination Workshop, SME Exhibition, and Panel Discussion.

Warm regards,

Dr. U A S K Edirisinghe

Coordinator- UoVT TESS Team

Dean-Faculty of Industrial Technology

University of Vocational Technology

## Urging to Change our Approach to Waste for the Sake of Future Generations



The United Nations' report, published under the rubric of *"Report of the World Commission on Environment and Development: Our Common Future"*, underscores the present generation's obligation to utilise natural resources without compromising future generations' ability to reap the benefits of such resources. Similarly, its *"2030 Agenda for Sustainable Development"* also envisages the pressing need to adopting sustainable production and consumption practices, managing natural resources sustainably and taking urgent action on climate change to protect our planet and to assure its ability to provide ecosystem services to the present and future generations. Both documents urge the present generation to accept the fact that natural resources belong to future generations, and we are the guardians of such resources.

The growth of population and the need of generating employment opportunities inevitably coerce nations to exploit natural resources beyond their regenerative rate. Similarly, the trendsetting marketing practices further exacerbate the extraction of natural resources, as consumers are leaned to adopt a throwaway lifestyle. All such initiatives certainly contribute to increasing the volume of waste and unsafe waste disposal that could pollute water sources, groundwater, and the environment. Such consequences are no exception in the context of Sri Lanka. The country's ability to attain some of the Sustainable Development Goals is being impeded. It is important to foster sustainable production, consumption and waste management practices aiming to minimise waste and to assure intergenerational equity.

At present, the rate of safe waste disposal in Sri Lanka is likely to be around 20%. The country should reconsider its approach to waste. Upcycling is one approach that can be adopted to reuse any item or material that its owner wishes to dispose. In the process of upcycling, a product of higher market value or quality is produced out of such items. Though some individuals or entities, involved in this exhibition and workshop, upcycle waste, we should make more efforts to avoid the accumulation of waste. The collapse of Meethotamulla waste dump demonstrates the country's failure to propagate the nationwide upcycling initiatives and sustainable waste disposal practices. As the members of the TESS project, co-funded by the European Union under its Erasmus+ CBHE programme, let us commit ourselves to foster waste management and circular economy education in the country. Otherwise, our descendants will blame us for being egoistic ancestors who failed to assure their wellbeing and existence.

Best Regards,

Chamara Kuruppu,  
Primary Coordinator of the TESS Project,  
USN School of Business,  
University of South-Eastern Norway,  
Norway

## Recycling and Upcycling Waste towards a Circular Economy

Over the last few decades, initiatives have aimed to increase public awareness of waste management, encouraging the population to support and participate in activities to improve waste management all over the world. Recycling and upcycling waste have been diligently used by entrepreneurs as innovative, sustainable and ecofriendly solutions to tackle the worldwide waste issues.

Both recycling and upcycling are pivotal in a circular economy strategy and sustainable development contributing to the reduction of waste, the redesign of materials and the use of waste as a resource to produce new and valuable products. By extending the lifespan of the materials and reducing the use of virgin resources, these practices are contributing to the mitigation of environmental impacts. Besides the contribution to the environmental aspect, they also contribute to the social and economic aspects through the job creation and economic growth, fostering social responsibility, influencing consumer behavior for the use of eco-conscious products inspiring the cultural shift towards sustainability.

Despite their advantages, these practices also face challenges such as technological and infrastructural limitations, market demand fluctuations, consumer behavior, and regulation. To address these challenges, collaborative efforts among government, industries, communities and consumers are required. The implementation of effective education and awareness campaigns and programs, the development of supportive policies, and the fostering of a market for recycled materials are essential steps to overcome these issues.

Sri Lanka faces several challenges related to waste management, namely improper waste disposal, limited recycling facilities, plastic pollution, inadequate and limited public awareness and policy implementation. Tackling these issues requires the improvement of waste collection systems, the increase and expansion of recycling and upcycling facilities, the implementation of stricter regulations, the promotion of public and educational awareness campaigns, the creation and implementation of new educational programs on universities, training of technicians and workers for waste management facilities, and foster the implementation of waste management practices among population and industries. The collaboration between government, entrepreneurs, private sectors, non-profit organizations, municipalities and communities is pivotal for the implementation of these sustainable solutions and to improve Sri Lanka's waste management practices leading to a cleaner environment with reduced pollution and a more conscious society.

Best Regards,

Prof Monica Carvalheira

Researcher

Biochemical Engineering Group (BIOENG)

Chemistry Department

NOVA SCHOOL OF SCIENCE AND TECHNOLOGY | FCT NOVA

Universidade NOVA de Lisboa

Campus de Caparica | 2829-516 Caparica | Portugal

## Message from Technical University of Denmark

The world is changing, why don't we? The long-lasting view on waste as something to be treated to mitigate its environmental challenges is evolving. Mainly due to first, lack of resource availability and second protecting the environment. Thereby, the waste is a treasure to recover valuable resources within a circular economy context. The methods and approaches for this transition are pivotal to achieve a sustainable consumption and production. The approach is not singular, i.e. technology dependent, instead it is a multi-dimensional strategy to be devised across economics, technology, environment and society by engaging various stake-holds across manufacturers, consumers and government/policy makers".

Best Regards,

Seyed Soheil Mansouri

Associate Professor

Department of Chemical and Biochemical Engineering

Process and Systems Engineering Centre (PROSYS)

Technical University of Denmark.

## **Holistic Approach to Waste Management and Community Well-Being of the Techno-Economic-Societal Sustainable Development Training in Sri Lanka (TESS)**

The Techno-Economic-Societal Sustainable Development training in Sri Lanka (TESS) is a comprehensive program focused on fostering sustainable development. It targets the nexus of technology, economics, and societal well-being to establish a holistic approach to sustainable waste management. As part of this project, cross-disciplinary undergraduate and postgraduate programs were developed to impart knowledge on waste management and valorization. These programs are designed to enhance capacity in this sector, contributing to a more sustainable and resilient future.

TESS aims to equip participants with the knowledge and skills needed to navigate the complexities of waste management, emphasizing the integration of technological advancements with economic and societal considerations. Academics underwent training to enhance their proficiency in delivering developed undergraduate and postgraduate programs across various universities in Sri Lanka. The training encompasses diverse topics, including sustainable waste management technologies, economic models promoting waste minimization and valorization, as well as social strategies enhancing community resilience in waste management.

Through TESS, participants gain valuable insights into creating a balance between technological progress, economic prosperity, and social equity. The program contributes to building a cadre of professionals in Sri Lanka who are capable of driving waste management initiatives and addressing the challenges faced in waste management in Sri Lanka.

TESS is instrumental in advancing Sri Lanka's commitment to sustainable waste management solutions by empowering individuals with the tools for positive and enduring change across technological, economic, and societal dimensions.

Best Regards,

Prof. Mahinsasa Narayana

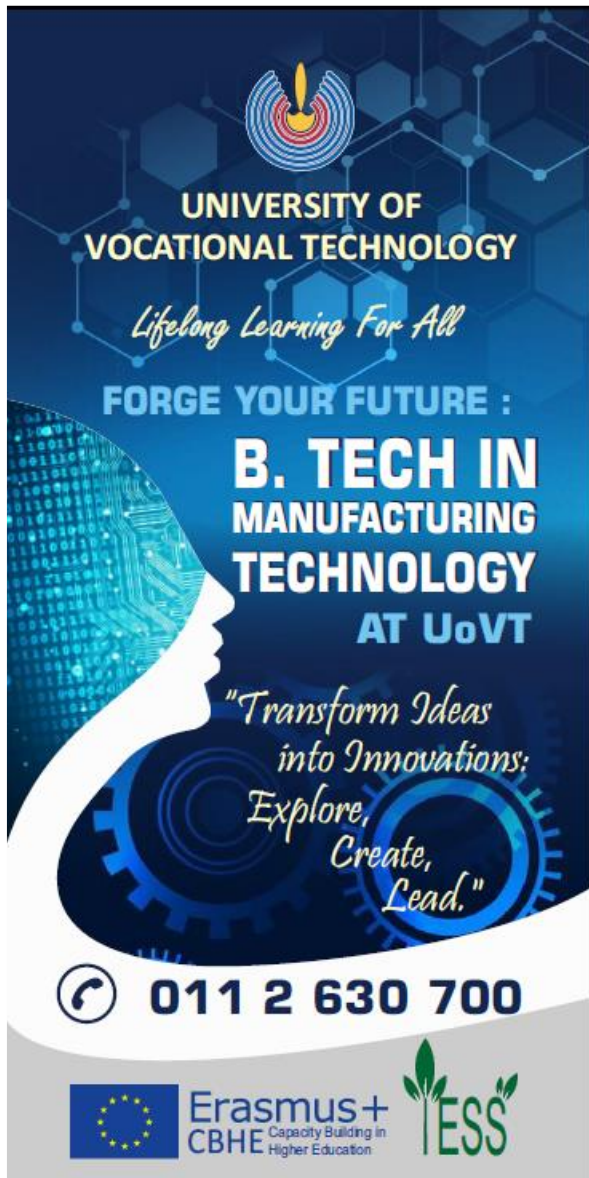
Faculty of Engineering

Department of Chemical and Process Engineering

University of Moratuwa



**Empowering Futures: B. Tech in Manufacturing Technology at UOVT - Where Innovation Meets Excellence and Global Opportunities.**



Deciding to pursue a B. Tech in Manufacturing Technology at UOVT means stepping into a world of advanced knowledge and excellent education in Manufacturing Technology, with a strong focus on innovation, entrepreneurship, global opportunities, a hundred percent employability factor, and a team of quality and friendly academic staff.

Our program is known for its modern approach and practical learning. You'll learn the latest techniques like precision engineering and sustainable practices, always with an eye towards innovation and fostering an entrepreneurial spirit. The General program covers all the basics, while the Honors track in the fourth year lets you specialize. This readies you to lead in the global industry with cutting-edge ideas and the entrepreneurial skills to turn them into reality.

We emphasize hands-on learning so you gain real-world skills, not just theoretical knowledge, and are well-prepared to contribute to innovative advancements and entrepreneurship in Manufacturing Technology on a global scale. This equips you with the tools to seize opportunities at an international level while ensuring you have the confidence of a hundred percent employability rate. With our dedicated and approachable academic staff, you'll find a supportive

environment that nurtures your growth and success.

**Welcome to a learning journey at the Department of Electro Mechanical Technology that gives you a strong advantage in the world of manufacturing, innovation, entrepreneurship, and global impact.**

Best Regards,

Dr. A.S.K. Warahena

Senior Lecturer Gr-1

Department of Electro-Mechanical

University of Vocational Technology

## Fostering collaboration and innovation through world-class industrial management practices

### Bachelor of Technology in Industrial Management Technology (Hons) Degree

Department of Management Studies



**UNIVERSITY OF  
VOCATIONAL TECHNOLOGY**

The leading State University open for NVQ or A/L

Department of Management Studies is offering

**B. Tech in Industrial  
Management Technology (Hons)  
Degree from 2023 / 2024**



Opening new avenues in  
**Sustainable Development and Circular Economy Education**

In Collaboration with  
**Techno Economic Societal Sustainable Development  
(TESS Project) Sri Lanka**  
Cofunded by **ERASMUS+CBHE Programme**

☎ 011 2 630 700  
✉ hod-ms@uovt.ac.lk



**Erasmus+  
CBHE** Capacity Building in  
Higher Education



In the future, Industries will be looking for young graduates who are capable of comprehensive and analytical thinking with the ability to combine technological aspects and business aspects sustainably. On the other hand, Industrial management is the blooming management field newly patently emphasizing its combination of technological aspects with business aspects. Thus, requirements for today's Industrial Management graduates are extensive, including technological, economic, ecological, social, and management skills.

The University of Vocational Technology is the pioneering university in the Technical and Vocational education sector in Sri Lanka, which caters to undergraduates from diverse fields of technology and opens the National Vocational Qualification (NVQ) entry path, the university has the capacity and opportunity to introduce undergraduate programmes in Sustainable Development, Circular Economy, and Waste Management as the project suggests. Accordingly, the newest step by revamping and enriching the B.Tech (honors).in Industrial Management Technology degree's curriculum with The TESS (Techno-Economic –Societal Development Training in Sri Lanka) Project under proposal No: EAC/A03/2018 co-funded by the European Commission under its ERASMUS+CBHE Programme, The University of Vocational Technology also one of the partners of local Universities and it has introduced circular economy, sustainability, and waste management related modules to the fourth year of the degree programme.

The degree programme Bachelor of Technology in Industrial Management Technology (Hons) gives you competencies with knowledge, skills, and attitudes required to control, and management of industrial processes using various technologies in various positions in existing goods and services industries and new industries such as resource recovery, recycling and waste management, and sustainable supply chain management.

Course type: There are two types of degree programmes -Weekdays and Weekends

Duration: 4 years

**Structure of the Degree Programme:**

<b>Year one</b>	
<b>Semester one</b>	<b>Semester Two</b>
Management Theory and Practice	Human Resource Management
Mathematics for Management	Strategic Management
Introduction to Accounting	Economics for Business
Marketing Management	Organizational Behavior
Information Technology for Managers	Introduction to Quality Management
Business Statistics –I	Costing & Cost Benefits Analysis
Introduction to Economics	Management Information Systems
Communication Skills-I	Communication Skills II
<b>Year Two</b>	
<b>Semester three</b>	<b>Semester Four</b>
Entrepreneurship and Business Management	Electronic Commerce & Web Technology II
Management Accounting	Logistic and Supply Chain Management
Project Management	Computer-Aided Design and Manufacturing
Electronic Commerce and Web Technology I	Financial Management
Business Statistics –II	Research Methods
Industrial and Commercial Law	Management of Technology
Operations Management	Quality Control Techniques
Energy Management	Stress management
<b>Year Three</b>	
<b>Semester Five</b>	<b>Semester Six</b>
Work Based Training	Plant Layout and Materials Handling
	Occupational Health & safety
	International Trade and Export Marketing
	Innovation Management
	Environmental Management and Cleaner Production
	Work Study & Ergonomics
	Final Project
<b>Year four</b>	
<b>Semester Seven</b>	<b>Semester Eight</b>
Corporate Governance and Business Ethics	Compliance Management
Academic Writing	Climate Change and Sustainable Infrastructure.
Sustainable Development and Circular Economy	Environmental Emergency Management.
Waste Management Technology	Business Models
Enterprise Resource Planning	Industrial Engineering Technology
Environmental Economics and Finance	Business Process Re-engineering
Dissertation Phase I	Dissertation phase 2

### **Wide Range of Work Opportunities:**

Graduates from the B.Tech (Hons) in Industrial Management degree programme are capable of working within a local and international environment as professionals where both technological and business know-how is needed. Graduates have good capabilities to work in demanding managerial tasks in the industry. Duties can be related to e.g., operation and production management, supply chain management, project management, and quality management. The degree programme gives a good basis for becoming an entrepreneur as well. Possible job titles after graduation are e.g., supply chain manager, production planner, and manager, project manager, factory manager, quality manager, waste manager, resources recovery manager, research and development manager

As an industrial management graduate, you are familiar with innovativeness, new working methods, customer orientation, and sustainable thinking and will be ready for interesting and challenging positions.

### **Admission Requirements for Weekday Degree Programme :**

- I. NVQ Level 5/6 in any subject discipline specified below.
  - Accountancy/Marketing/HRM or any Management discipline.
  - Electrical & Electronic / Automobile / Mechatronics / Mechanical and Information & Communication Technology
  - Construction/Civil / Quantity Surveying
  - Agriculture / Food Technology

Or
- II. HNDE/NDT/NDES or equivalent qualification acceptable to the Academic Council of UNIVOTEC. Preference will be given to candidates with managerial/supervisory level work experience.
  - Pass the GCE Advanced Level examination in Commerce, Engineering Technology, and Physical Science.

### **Admission Requirements for Weekend Degree Program:**

- I. NVQ Level 5/6 in any subject discipline specified below.
  - Accountancy/Marketing/HRM or any Management discipline.
  - Electrical & Electronic / Automobile / Mechatronics / Mechanical and Information & Communication Technology
  - Construction/Civil / Quantity Surveying
  - Agriculture / Food Technology

Or
- II. HNDE/NDT/NDES or equivalent qualification acceptable to the Academic Council of UNIVOTEC. Preference will be given to candidates with managerial/supervisory level work experience.

Ms.U.Sivachelvy – Head (Mobile: 0714910462 email: sivachelvy@uovt.ac.lk)

Ms. B M T D Jayasekara (Mobile: 0714315309 email: bmtjayasekara@uovt.ac.lk)

Ms. T R Vidanapathirane (Mobile: 0718143241 email: thanuja.vidanapathirane@uovt.ac.lk)

Ms. K G N Pushpa Rajapaksha (Mobile: 0777914216 email: nilanthipr@yahoo.com)

Academic Staff - Department of Management Studies

# **Small and Medium Entrepreneurs' Profiles (Waste Resources Based)**





## A COMMUNITY EMPOWERING ZERO WASTE MISSION

By  
Green Life Generation (Pvt) Ltd

**I AUM UPCYCLED** is an ethical and sustainable lifestyle brand combining community waste management with sustainable and resilient livelihood development.



### Original Collection

Souvenirs consisting of positive messages made from upcycled wood off cuts

### Paper and Cardboard Collection

Packaging, stationary and decorations made from upcycled cardboard and paper



### Lihiniya Collection

Patchwork products made from upcycled fabric waste

### Migara Collection

Jewellery, wall hangers and interior decorations made from upcycled beer tins



### MyEcobonds

Innovative plastic waste collecting, trapping and tracing technology



32 Kengalle Veediya, Kengalle, Kandy, Sri Lanka



+94 777 360100 / +94 77 2162161



greenlifegene@gmail.com



I\_AM\_UPCYCLED



THE GLOBAL GOALS



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



## NDS Holdings (LERD)

"Embark on a journey into the realm of opulence and enduring quality, as our business in the leather industry epitomizes the perfect blend of luxury, excellence, reliability, and durability."

LERD is a brand and a dynamic startup company and we operate in the industry of leather products manufacturing. We are specializing in the production of premium quality leather goods. With traditional leather working techniques and a commitment to excellence, we combine skilled artisans and innovative design to create timeless and luxurious leather products such as business wallets, business card holders, sunglass covers, bags, purses & etc. All of these leather products are handcrafted using the finest cowhide and goat leather, while seriously taking care of every stitch we sew.



At LERD, we are committed to reducing environmental impact by transforming leather waste into stylish, eco-friendly products. In our production process, we repurpose excess leather, turning it into unique and high-quality items that not only make a fashion statement but also contribute to a greener planet. Embrace style with a purpose - choose LERD for fashion that not only looks good but also feels good for the environment.

"Elevating style, inspiring elegance." is our vision for the brand and our mission statement is "to create exceptional fashion experiences that elevate personal style and inspire individuals to embrace elegance. Through meticulous craftsmanship, timeless designs, and a commitment to quality, we strive to empower our customers to express their unique identities with confidence and grace. We are dedicated to providing unparalleled customer service, fostering a culture of creativity & innovation, and shaping the future of fashion with our unwavering passion for elevating style and inspiring elegance."

At LERD, our values include quality, authenticity, creativity & innovation, elegance, empowerment & excellence. Whether you are looking for a product to elevate your style or a thoughtful gift that creates a long lasting bond, LERD offers a range of finely crafted leather products that embody luxury, craftsmanship, and authenticity. Experience the unmatched beauty and durability of our leather goods, proudly made in Sri Lanka.

Contact: 0759831831 / 0776609709

Website: [www.lerd.lk](http://www.lerd.lk)

Facebook: [www.facebook.com/lerd.sl](https://www.facebook.com/lerd.sl)

Email: [contact@lerd.lk](mailto:contact@lerd.lk)

Instagram: [www.instagram.com/lerd.lk](https://www.instagram.com/lerd.lk)

Tiktok: [www.tiktok.com/@lerdlk](https://www.tiktok.com/@lerdlk)

Address: No. 06, Araliya Uyana, Kahatapitiya, Gampola. 20500.

LinkedIn: [www.linkedin.com/company/lerd](https://www.linkedin.com/company/lerd)

**Haritha Lanka is a Sri Lankan organization to promote fertilizer manufacturing and fabrication of machineries.**

**We are rapidly expanding our operations in-line with the predicted future food shortage and ecological farming trend in the world.**

**We guarantee the quality of our products while following an agile process with continuous improvement of our products & methods with industry**



**Contact Us**

**+94 71 696 9173**

**+94 76 77 88 358**

**Harithalankamachinery@gmail.com**



## සදාකාරීකවම ගෑස් නොමිලේ ලබා ගන්න...



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Sathvidu Eco Products (Pvt) Ltd.

367, Elizabeth Fernando Mawatha, Wennappuwa



Mr. Sanjaya - 071 655 4922

Whatsapp 072 233 588 6

Web: sathvidueco.com

වාරික 24ක්  
දක්වා ගෙවන්න  
ගන්න

PIONEERS IN PVC BIO GAS UNITS AND SYSTEMS

**Rush & Reed Products**

- ❖ **Enterprenure Name:** Mrs. Muditha Peiris
- ❖ **Address** 12/6, Sunanda Eliya Rd, Egoda uyana, Moratuwa.
- ❖ **Contact** No.0757511266
- ❖ **Alternatives** for Polythene bags/ plastic buckets



## Amaya Aluminum Art

Our Main Objectives: We are manufacturing Aluminum Casting products Eg. : Gates, Balcony, Garden chair, Machinery Parts, Decoration Items, Vehicle Parts, Grills using disposed Aluminum/ scrape Aluminum Eg.: Beer cans, Bottle cap, Food containers, Disposed and Vehicle Parts

Address : 2003, New Galle Rd, Egodauyana , Moratuwa.

Contact Detail : 0715691754/0758221554

Social media : FB: Amaya Aluminium Art

Owner Name : K. Prasad Madushan Fernando.

Power source are used : Electricity / Waste engine oil



Benefits : \*Manufacturing Aluminum products for market  
\*Recycling Metal Waste and re use waste oil  
\*Protect Environment and contributing to circular economic.





Name : P.M RAVINDU DILSHAN KIRIMETIYAWA

Address : KIRIMETIYAWA,MAHO

Whatsapp Number : 0764178801

Email : dilshanravindu01@gmail.com

Product Name : RDK PRODUCTS

Design Materials : Coconut Shell Craft

Description :

Making various designs that are useful in everyday life with the coconut shells we throw away. For this, coconut shell and coconut wood obtained from the coconut tree are used. Many useful designs can be made from these easily available materials without harming the environment.

Manufactured Goods :

● Coconut Spoon

( egg spoon,curry spoon,oil spoon and more... )

● Coconut Bowl

● Fork

● Chopsticks

● Soap Disk

& More Items...

Lak Nature International Pvt. Ltd.

**Unlocking the Goodness of Nature**

In a country where over 40% of fresh fruits and vegetables go to waste during post-harvesting, storage, transportation, and market handling, Lak Nature International Pvt. Ltd. emerges as a beacon of change. Our solution is clear – to tackle food waste head-on by offering natural easy access food solutions to all.

Harnessing cutting-edge technology and quality control measures, we ensure the preservation of fruits and vegetables while safeguarding their natural properties. Our product portfolio, designed for easy accessibility, empowers consumers to adopt a zero-waste, time-efficient lifestyle, gaining full nutrients for their daily diet plans through diverse ingredient access.

Lak Nature International isn't just a business; it's a catalyst for women empowerment. With a diverse portfolio encompassing over 50 products – from dehydrated fruits, vegetables, leaves, and powders to inbrine vegetables and fruits produce, cooked foods, healthy capsules and new products developments – we provide opportunities for women to thrive in our innovative ventures.

As a sustainable, regenerative business, we embrace organic cultivation and applications, laying the foundation for a healthier and greener future. Join us in this journey towards reducing food waste, empowering women, and creating a sustainable, nutritious world for all. Lak Nature International Pvt. Ltd. – Revolutionizing Food Preservation in Sri Lanka



**Lak Nature International Pvt Ltd**  
251/A, Halthota Road, Ballanthudawa,  
Bandaragama, Sri Lanka.  
[www.laknature.com](http://www.laknature.com)  
+94777238510



## Producing Ornament Using Discard Martials

We are making ornaments such as jewelry boxes, Birthday Gifts, Pen Holders, and Macros

**Name :** Ms. Lasika Srimathi Peiris

**Address :** No 534/20, Samarakoon Idama,  
Molpe,  
Moratuwa



**Contact No:** 0723006072,0773970098





# NADZ ESSENTIALS

Personalized essentials from Reclaimed Wonders

 nadzessentials.lk  
 www.seawater.lk  
 nadzessentials@gmail.com  
    
 nadzessentials



Nadeeka Nilaweera  
 273/3, Rukmal Place  
 Thembiligasmulla rd  
 Kiribathgoda  
 Sri Lanka  
 T/P: 0094-768470140



**Welcome to NadzEssentials**, where sustainable fashion meets conscience. Whether it's a special occasion or a "just because" moment, choose Reclaimed Radiance for personalized essentials that make a difference. Gift with purpose, and let your love shine through every reclaimed creation!

**The journey** began with a vision to redefine fashion by transforming discarded materials into stylish, eco-friendly products. At NadzEssentials, every item tells a story of resourcefulness and innovation. We take pride in our dedication to minimizing environmental impact while delivering trendy and unique essentials that captivate the senses. Driven by a commitment to waste reduction, NadzEssentials focus a cutting-edge waste management system.

**Make it happens...**

We meticulously select waste textiles from Clothing productions and used fashion accessories from household end users, turning them into exquisite, functional pieces that not only showcase your style but also contribute to a greener planet.

**Join us** on this remarkable journey where fashion intertwines with sustainability, making a statement that goes beyond aesthetics – a statement that echoes our dedication to a more responsible and beautiful world.

Our personalized essentials are not just thoughtful gifts; they are a testament to sustainability, craftsmanship, and the beauty of second chances....



## Laptop Bags Using Discarded Tyres and Tubes- NRL Enterprise & Academy

We are manufacturing Lap top cases, Pencil cases, wallets, and waistband purses using discarded tires and tubes after cleaning and processing. The discarded Tyres and tubes have become a tremendous threat to the environment and our production contributes to promoting circular economy practices among SME's in Sri Lanka by upcycling them into useful products. Further, to reduce lunch sheet consumption we have designed a fabric-based Lunch carriage in various sizes and colours. We use discarded fabric from garments and households for this purpose.



### Contact

Mr. h.P.G. Sumith Wasantha

Mrs.K. Salika Deepani

076 7555721/0719587584- nrlbag@gmail.com



## **M&D Agro Waste Recycling (PVT) LTD**

### **Biomass Briquettes**

#### **Introduction**

In the face of growing environmental concerns and the need for sustainable energy sources, biomass briquettes emerge as a promising solution to address both energy demands and ecological impact. Every year millions of tons forestry and agriculture waste are generated. There are either non used or burnt inefficiencies in their loose form causing air pollution.

So, we process this waste of converting this low bulk density stuff into high density and energy concentrated fuel briquettes and we are proud to achieve to motto which is '**converting agro waste and forestry waste in gold**'.

We name this product, as '**Biomass Briquettes**'.

We can say Biomass Briquettes is a non-conventional source of energy, renewable in nature, eco friendly, non-polluting and economical.

Briquettes are made from the agriculture waste and forestry waste. It is being converted into solid cylindrical and great substitute of coal and fire wood. And process of Bio mass to solid fuel is also no polluting and no addition of any binder or chemical is required. So it is 100% natural.

#### **What can be used to make Briquettes?**

- Sawdust
- Wood Waste
- Cotton Stalks
- Groundnut Shells
- Rice Husk
- Sugar Cane Trash
- Corn Cob
- Straw
- Coconut Shell
- Coir Pith

#### **Benefits**

1. Renewable energy fuel
2. Pollution free because there is no any sulfur material
3. Biomass Briquettes have higher practical thermal value
4. Lower ash content
5. There are no fly ash when burning briquettes
6. Briquettes contain low moisture
7. Briquettes produce white smoke which is not harmful.
8. Have high burning efficiency and thereby save costs.
9. Best substitute source of energy
10. Contain high density, higher fixed carbon value
11. Demandable market due to high rise in fossil fuel prices.
12. Using briquettes will be beneficial for the industrial as they will get carbon credits.
13. Forest reservation in the country due to the reduction of using wood logs as a source of energy.

No. 3 Yatch Club Road, Lower Indebbada  
Moratuwa  
0112654455, 0770794095

## Green pack- Paper Packing Material



Green Pack is a revolutionary paper packing material crafted from cane sugar bagasse, a byproduct of the cane sugar (rihizomataus) industry. With a strong focus on sustainability, this innovative packaging incorporates a binding agent and natural paper coating for paper cups, ensuring a comprehensive eco-friendly solution.

Derived from high-quality bagasse fibers, Green Pack presents a cost-effective, renewable, and inexhaustible resource for paper manufacturing. By utilizing bagasse, we ensure that no additional strain is placed on our natural resources, making it an environmentally conscious choice. One of the key advantages of Green Pack is its 100% biodegradability, ensuring minimal environmental impact. This eco-friendly material can be reused and recycled, offering both primary and secondary packaging options, thus reducing waste and promoting responsible consumption.

**Join the movement towards a greener and more sustainable future with GreenPack!**

T.M.Chithranganie lasanthika

0704701970

[chithranganielasanthika01@gmail.com](mailto:chithranganielasanthika01@gmail.com)

**Students' Projects**  
**(Waste Resources Based)**

## Eco-friendly Versatile Indoor Flower Planting Pot

### Project Team



H.P.C.Kaushalya

IM/19/B1/36



U.G.A.Sampath

IM/19/B1/08



D.D.G.L.Chathuranga

IM/19/B1/14

**Eco - friendly versatile indoor flower planting pot  
(nature pot) by using waste material**

**Group number - 2 (Batch 2019/20)**

**Department of Management Studies**

**Faculty of Industrial Technology**

**UoVT**

### **Ingredients of nature pot**

**1) Wood dust – Wood dust is the Primary material of the pot. (85%)**

**2) Sackcloth - Increase the strength of the pot**

**3) Wild cassava – Used to mix all the ingredients.**

**4) Camphor powder – Act as an Insecticide**

**5) Clay “Samar” – Increase the durability and gain a pervert color**

**4) Cement – To increase the strength of the pot**

### The Nature Pot



Nature pot is produced as eco - friendly, value added and fascinating indoor flower pot by reusing the waste materials, to mainly reduce the plastic usage and the wood dust wastage that excludes from the woodwork stations in Sri Lanka, in order to gain economic benefit.



## Eco-Friendly Plant Transport Solution



### Introducing Areca Pack: Your Eco-Friendly Plant Transport Solution

Welcome to Areca Pack, where we offer an innovative and eco-friendly solution for transporting your beloved plants! Our plant transport boxes are carefully made using arecanut leaf sheaths, providing a dependable and environmentally conscious method to transport your greenery effortlessly.

#### Why Choose Areca Pack?

- 1. Natural, Eco-Friendly Material:** Our boxes are made from biodegradable arecanut leaf sheaths, ensuring a minimal environmental footprint. Say goodbye to harmful plastic and embrace a greener alternative.
- 2. Sturdy and Protective:** Designed to provide optimal protection for your plants, Areca Pack ensures that your green companions stay safe and secure during transportation. The durable nature of these boxes safeguards your plants from damage.

#### Special Thanks

This entire project is a project carried out under the full supervision of Ms B.M.T.D Jayasekara - 071 4315309 and our DMS HOD Ms. U. Sivachelvy , Project coordinator Ms. K.G.N.P. Rajapaksha ,Ms. T.R. Vidanapathirane



Sanjaya



Ravishankha



Malaka



Eranda

Sanjaya 0714162508 / Eranda 0761322808 / Malaka 0712467068 / Ravishankha 0714905083

Eco-Friendly Plant Transport Solution



# Eco - Friendly Coconut Coir Bag Instead Plastic

**Product Name:** Coconut Coir Bag



**Product Owners:** G.G.N.M. Dharmasena / M.W.Y.S.Weerasinghe / K.D.A.G.Wicramasurendra / A.M.S. Pramuditha

**Telephone Number:** +94767175291 / +94719143305

**Email:** nilukshidharmasena44@gmail.com

## **Product Introduction:**

Producing the eco-friendly multipurpose coconut coir bag instead of plastic forms. Made this bag to be used instead of polythene, plastic and cloth bags. Through that, we can reduce environmental pollution.

**Material:** Coconut fiber and Wood glue

## **Bag Size:**

- Height – 35 cm
- Width – 9 cm
- Length – 26 cm

**Carry weight:** 7kg

## **Benefits of coconut coir bag:**

- Biodegradability - Coir bags break down harmlessly. After use this bag can be used as a vase for growing plants.
- Less environmental pollution – Using natural resources and renewable resources for producing bags.
- Soil Benefits - When they break down, coir enriches the soil.
- No single-use bag, this bag Can be used multiple times.
- Can carry a weight of 7 Kg.
- Has Economic benefit in using this bag over the use of polythene bag. (Can be used multiple times and long time)



## **Images of Product:**



## GM COATING

### Freshness Locked, Fruits Revived



GM Coating - a natural and nutritious edible fruit coating made from Cavendish banana peel and Okra mucilage.

The banana peel, rich in potassium, fiber, and antioxidants, promotes digestive health, prevents cancer, and improves eye health and skin. GM Coating can reduce fruit post-harvest losses and replace harmful artificial coatings.

With 95% natural ingredients, it is sustainable and eco-friendly. Raw materials are sourced from banana chips and powder processing companies, promoting waste reduction.

Okra mucilage, a safe and bioactive component, enhances the coating's nutritional profile.

GM Coating preserves fruits naturally, adds a pleasant taste, and benefits consumers' health.

***Embrace a healthier, tastier, and eco-conscious future with GM Coating the natural choice for enhancing fruit shelf life.***

**Kalpana Sithumini Wanasinghe**

sithuminiwanasinghe620@ gmail.com

0717622620

## Herbal Tea - Discover the Soothing King Coconut Endocarp Tea



Herbal Tea - Embrace the soothing elixir of King Coconut Endocarp! Our product utilizes the tender wall of endocarp (Kahakada) from native King Coconuts, known as “Thambili” in Sri Lanka. Rich in nutrition, natural antioxidants, potassium, calcium, vitamins B and C, and amino acids, it's a true treasure.

Endocarp is a waste material after processing of UHT-treated coconut water which has converted into this soothing herbal tea, abundant in astringent properties. The endocarp's astringent and antacid nature brings relief to the stomach lining and minimizes inflammation, with traditional roots in indigenous medicine.

Conveniently presented in tea bags and bottled endocarp powder, savor the wellness benefits of this revered natural infusion.

**Indulge in the tranquility of King Coconut Endocarp Herbal Tea, embracing tradition and modern well-being in every sip!**

M.W.Madhushani Thakshila Morawaka

[Thakshila4568@gmail.com](mailto:Thakshila4568@gmail.com)

0702037473



## Hand Craft using disced Coconut shells Products

**M.praveen Apsara Vidusanka Fernando**

Gared 10, Buddhagosha National School, Palapathwala

Address ; No 140/R, Alikaluviharegama , Silani Janapadaya, Iriyagolla, Koudupalalla, Matale



I am a student of Palapathwala Buddhagosha National School of Matale and also a member of the Chambers of Commerce. I am making ornaments using discarded coconut shells and selling them. I have previously displayed my creations at an exhibition conducted by the Central Province SME exhibition and an exhibition conducted by the American Embassy office. I expect expectation is to become a successful entrepreneur and contribute to the circular economy by upcycling waste materials.



