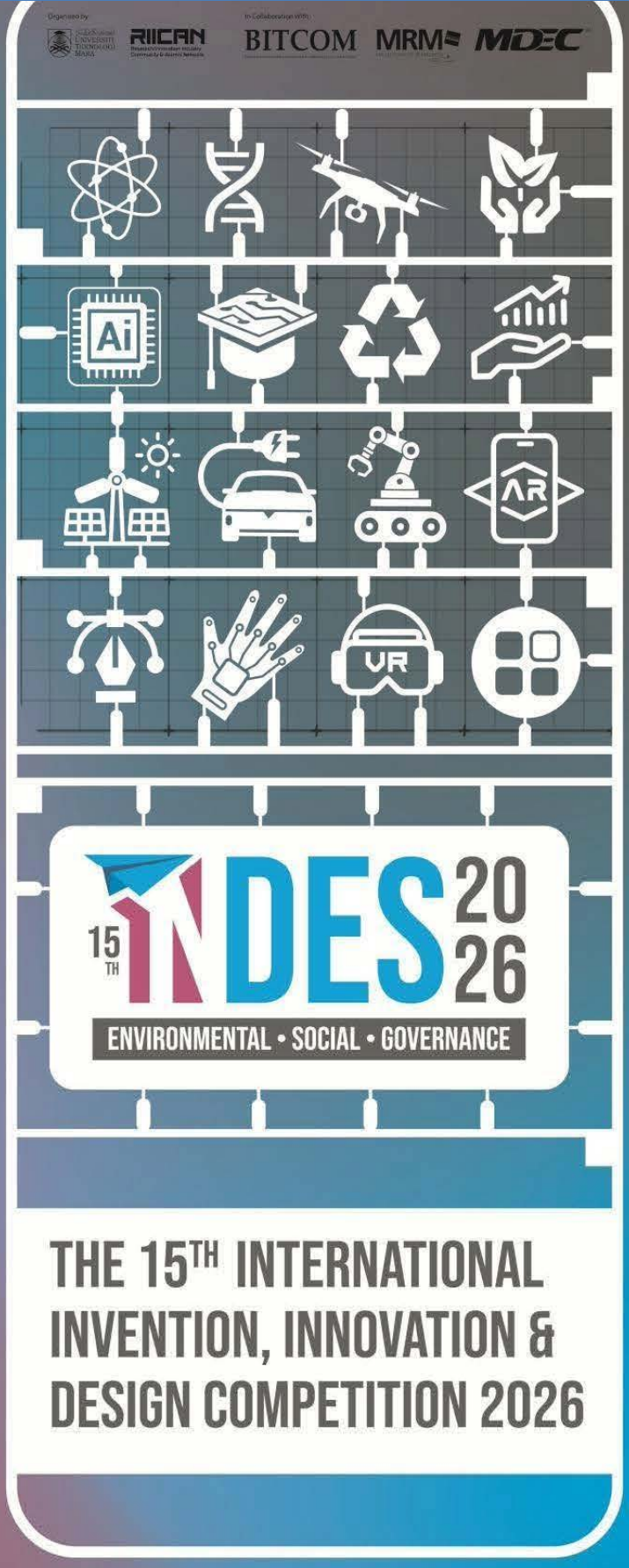


E-BOOK OF

EXTENDED ABSTRACT

E-BOOK OF EXTENDED ABSTRACT

THE 15th INTERNATIONAL
INVENTION, INNOVATION &
DESIGN COMPETITION 2026

Organized by:
Office of Research, Industry,
Community & Alumni Network
UiTM Perak Branch

© Unit Penerbitan UiTM Perak, 2026

All rights reserved. No part of this publication may be reproduced, copied, stored in any retrieval system or transmitted in any form or by any means; electronic, mechanical, photocopying, recording or otherwise; without permission on writing from the director of Unit Penerbitan UiTM Perak, Universiti Teknologi MARA Perak Branch.

Unit Penerbitan UiTM Perak,
Universiti Teknologi MARA,
Perak Branch, 32610
Seri Iskandar Perak, Malaysia.

Perpustakaan Negara Malaysia Cataloguing in Publication Data

No e- ISBN 978-967-2776-67-3

Cover Design: Asrul Nizuan Ariffin

Typesetting : Georgia

EDITORIAL BOARD

Editor-in-Chief

Muhd Syahir Abdul Rani

Managing Editors

Muhammad Wajihuddin Johari
Paul GnanaSelvam A/L Pakirnathan
Nazirul Mubin Mohd Noor
Nurdiyana Mohamad Yusof
Halimatussadiah Iksan

Copy Editors

Sheema Liza Idris
Nurul Munirah Azamri
Zarlina Mohd Zamari
NoorAileen Ibrahim
Farahidatul Akmar Awaludin
Siti Syairah binti Fakhruddin
Noor Fazzrienee JZ Nun Ramlan
Madaha binti Hanafi @ Mohd Ghani
Halimatun Saadiah Abd Mutalib
Hanitha A/P Satthiananthan
Syaza Kamarudin
Iza Faradiba Mohammad Patel
Nuramira Anuar
Noorlinda Alang
Noraziah Azizan
Faridatul Akma Wan Mohd Rashdi
Azurawati Zaidi
Ong Elly
Noran Nur Munira Khalili
Amirah Athirah Amir Yazid
Nurshahirah Azman
Daljeet Singh Sedhu A/L Janah Singh
Budiman Sabri Ahmad
Amirul Farhan Ahmad Tarmizi
Sarah Sakinah Assa'adah Johari

GOTU KOLA GUMMY

Azhar Bin Buhari[1], Nursyuhaidah Binti Zaid[2]

Kolej Vokasional (ERT) Azizah, Johor Bahru, Johor

E-mail : azharbuhari89@gmail.com

ABSTRACT

Gotu kola, scientifically known as *Centella asiatica*, is a herb that is commonly eaten fresh as a traditional salad (*ulam*) and is also used as a medicinal herb to heal wounds, improve memory, reduce mental fatigue, alleviate stress and anxiety, and treat eczema (MARDI Technology Bulletin). According to Jiamjariyatam (2018), gummy candy has a sticky, chewy texture and can be difficult to chew. It is usually made from fruit juice or herbs combined with sugar and other ingredients that give it a gel-like texture. Gotu Kola Gummy is a children's snack produced from gotu kola. There is currently no available information regarding the use of gotu kola in children's snack products. The objective of this innovation is to commercialize gotu kola in children's diets. In addition, it aims to introduce this product to the international market. Furthermore, it seeks to encourage children to obtain balanced nutrition, particularly by incorporating vegetables into snack products. This innovation idea was developed when the researcher conducted both international and online market research and found that there were no existing snack products that combined gotu kola and gummy candy.

Keyword: *Gotu kola, gummy, snack, children, gotu kola gummy*

1. INTRODUCTION

In recent years, there has been an increasing demand for functional foods that promote a healthy lifestyle and improve overall well-being. Confectionery is one of them. In this report, we specifically focus on gummy candy. Gummy candy is a type of soft confectionery characterized by its chewy texture and is mainly produced using gelling agents such as gelatine, pectin, or starch. It is widely consumed, especially among children, due to its appealing taste, texture, and shape (Salvia, 2026). According to Mozhgan et al. (2024), there has been an increasing demand for functional and healthier gummy candies in recent years, leading researchers to incorporate bioactive compounds, plant extracts, and natural sweeteners into formulations. For example, a study on functional gummies enriched with antioxidants and stevia showed that gummies can be developed as reduced-sugar products with added health benefits while still maintaining acceptable texture and sensory properties.

Thus, in this candy product, we will innovate gummy candy with herbal extract. It is sweet yet healthy for children. Gummy candy has been widely used as a delivery system for herbal or nutraceutical ingredients, especially for children, because it helps mask the unpleasant taste of herbal extracts and improves compliance (Marcelina et al., 2025). We are also adding fruit and date paste to the product to develop a healthier gummy by replacing glucose syrup. This has shown improvements in nutritional profile and physicochemical properties (Marcelina et al., 2025).

2. METHODOLOGY

I. Equipment / machines used

Silicone gummy mould	Cooking pot	Thermomix	Chiller
Muslin cloth	Stainless steel bowl	Sieve	Silicone spatula

II. List of components / materials involved

Apples	Gotu kola	Gelatine	Lemon
Dates	Honey	Ascorbic acid	Rolled oat

III. Assembly / production



Figure 1 Boiling Gotu kola, producing date paste and drying gotu kola filling

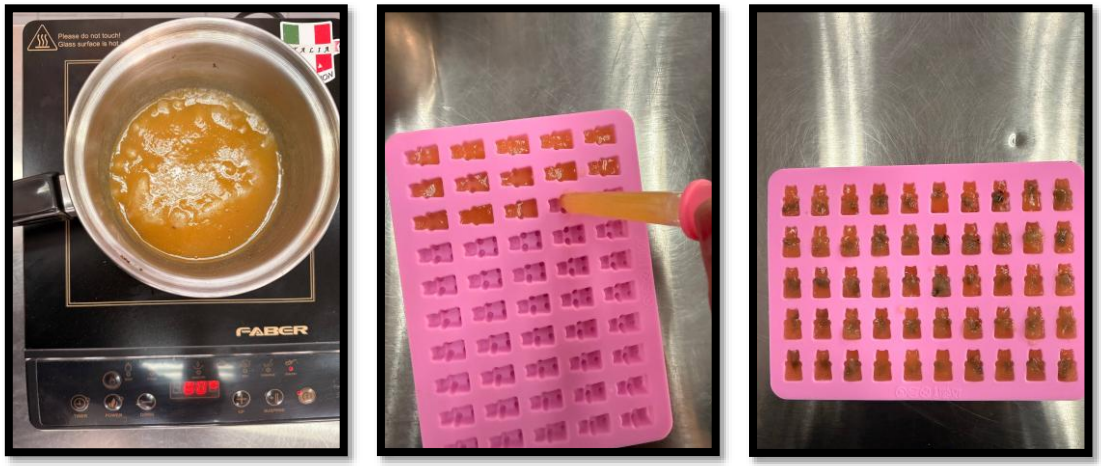


Figure 2 Heat the ingredients and assemble

3. FINDINGS

There is a significant market opportunity for "Gotu Kola Gummy" due to its 100% approval rating for marketability despite its very low current level of awareness. The product effectively addresses the problem of childhood vegetable aversion caused by bitter tastes and unappealing textures.Respondents, including parents and academic professionals, unanimously agree that this innovation is essential to ensure children's nutrition—specifically, by providing Vitamin A, Vitamin C, and Calcium in an attractive, easy-to-consume format. The primary target demographic is children aged 3 to 6 years old.

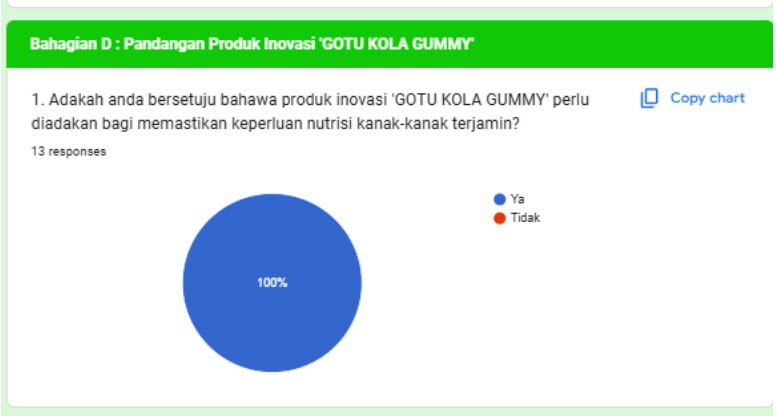


Figure 3 Findings of Gotu Kola Gummy

4. CONCLUSION

The development of this innovation is intended to support the commercialization of gotu kola for children's consumption, as it contains nutrients that contribute to their growth and development.

REFERENCES

Jiamjariyatam, R. (2018). Influence of gelatin and isomaltulose on gummy jelly properties. *International Food Research Journal, 25*(2), 776–783.

Marcelina, H., Fizkha, H., Fransiska, M. S., & Dewi, S. (2025). Formulation development of gummy comprising ginger (*Zingiber officinale*), curcuma (*Curcuma xanthorrhiza*), and lemongrass (*Cymbopogon citratus*). *[Journal/Publisher information not provided]*.

Mozhgan, R., Mohsen, B., Mohammad, A. S., & Hassan, A. G. (2024). Formulation of functional gummy candies containing natural antioxidants and stevia. *[Journal/Publisher information not provided]*.

Salvia, H. L. (2026). Formulation of gummy candy preparations containing chia seed oil. *Pharmacoscript, 9*(1), 98–114. https://doi.org/10.36423/pharmacoscript.v9i.2353

E-BOOK OF EXTENDED ABSTRACT THE 15th INTERNATIONAL INVENTION, INNOVATION & DESIGN COMPETITION 2026

eISBN 978-967-2776-67-3

9 789672 776673

Date of Publication: 13 July 2026

UNIT PENERBITAN UITM PERAK

(online)