Anil Kumar Anal, PhD

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Research profiles
Scopus: https://www.scopus.com/authid/detail.uri?authorId=6507443748
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#Featured as Top 0.5% Scientists (Globally) in the Field of Food Science; Published in October 2022 by Stanford University and Elsevier BV.
#Featured as Top 2% Scientists (Overall- Globally); Published in October 2022 by Stanford University and Elsevier BV.

Academic and Research Specialization

Keywords

Food Science and Technology; Food and Bioproduct Materials; Bioprocess Technology; Bio Circular Green (BCG) Economy; Future Foods.

Research Themes

1. Green- technology based Valorization Methods and Processing of Plant Materials and Agri-food-residues for Production of High Value Bioactive Compounds
2. Structures and Interactions of Biomolecules (Polysaccharides, Proteins, Lipids, and other Bioactive Micromolecules) and Evaluations of Structural Changes in Food Formulations and Their Behavior under Oral and Gastrointestinal Environments.
3. Development of Encapsulation and Delivery Systems for Bioactive Compounds and Probiotic Cells in Food, Feed and Neutraceuticals.
4. Nanotechnology for developing biomaterials, food products and Biopackaging/ edible packaging systems
5. Bioprocessing (Precision Fermentation) and Future Foods
6. Food Safety.

A. Education

Ph.D. Food Engineering and Bioprocess Technology
1999-2003, Asian Institute of Technology, Thailand

M.Sc. Bioprocess Technology
1997-1998, Asian Institute of Technology, Thailand

DVM Doctor of Veterinary Medicine
1990-1995, University of Agriculture, Faisalabad, Pakistan

B. Professional Experience

I. Administrative

Chair, Food Innovation, Nutrition and Health Academic Program
March 2020- till
Asian Institute of Technology, Thailand

Chair, Academic Development Review Committee (ADRC)
March 2020- Feb 2022
Asian Institute of Technology, Thailand

Head of the Department (HOD)
Jan 2017-Dec 2020
Department of Food, Agriculture and Bioresrouces
School of Environment, Resources and Development
Asian Institute of Technology, Thailand

Cluster Coordinator
Nov 2013-Dec 2016
Food, Agriculture, and Biosystems Cluster
School of Environment, Resources and Development
Asian Institute of Technology, Thailand

Asian Institute of Technology, Thailand

Associate Dean; Research and Outreach
Jan 2010-June 2013
School of Environment, Resources, and Development,
Asian Institute of Technology, Thailand

Interim Director
June 2011-Dec 2012
Centre of Excellence of Nanotechnology
Asian Institute of Technology, Thailand

II. Academic & Research Level

Professor
Jan 2020- Present
Food Engineering and Bioprocess Technology (FEBT)
Food Innovation, Nutrition, and Health (FINH)
Department of Food, Agriculture and Bioresources (FAB)
Asian Institute of Technology, Thailand

Associate Professor
Jan 2014- Dec 2019. (6 Years)
Food Engineering and Bioprocess Technology (FEBT)
Department of Food, Agriculture and Bioresources (FAB)
Asian Institute of Technology, Thailand

Assistant Professor
July 2009-Dec 2013 (4 Years 5 Months)
Food Engineering and Bioprocess Technology (FEBT)
Department of Food, Agriculture and Bioresources (FAB)
Asian Institute of Technology, Thailand

Adjunct Professor
Jan 2022 – Till (Continue)
Kasetsart University, Thailand

Visiting Professor
2017- till (Continue)
National Institute of Science and Technology (NIST)
Tribhuvan University, Nepal

Senior Scientist
March 2008-July 2009 (1 Year 3 Months)
Living Cell Technologies (Global) Limited, New Zealand

Research Scientist
June 2005- Feb 2008
The Riddet Institute (Centre of Research Excellence)
Massey University, New Zealand.

Postdoctoral Scientist
June 2003- May 2005
University of Otago, New Zealand

Visiting Research Fellow
Nov 2000- Feb 2001
University of Santiago de Compostela, Santiago de Compostela, Spain

Visiting Research Fellow
April 2000- June 2000
Kansai University, Osaka, Japan

Research Associate
June 1998- May 2003
Asian Institute of Technology, Thailand

II. Others (Professional Services)

Invited Expert; Cell-based Food Products and Food Safety Considerations
2022- till
Food and Agriculture Organization (FAO) of the United Nations.

International Food Safety Consultant
2021- till
Asian Development Bank (ADB)

Editor
2021- till
Scientific Reports Journal (Section: Food); Nature Publishing Group

Guest Editor
2022- till
Special Issue: Food Wastes to Valuable Resources; Foods Journal; MDPI Publications.

Guest Editor
2021- 2022
Special Issue: Innovation for Sustainable Food Processing and Supply Chain Management; *Sustainability J*ournal; MDPI Publications.

Guest Editor
2018- 2020
Special Issue: Food Safety Edition, Journal of Food Control, Elsevier

Associate Editor
2022- till
Frontiers Journal (Section: Frontiers in Bioprocess Engineering); Frontiers Publications.

Regional Editor
2016- till
Journal of Food Quality and Safety; Oxford Academic Publications.

Academic Editor
2019- till
Biomed Research International, Hindawi Publications,

Member; Editorial Board
2020- till
Journal of Future Foods; Elsevier Publications

Member, Editorial Board
2017- till
Journal of Ethnic Foods; Springer Nature Publications

Member, Editorial Board
2016- till
Food and Applied Bioscience Journal

Member, Editorial Board
2012- till
Pakistan Journal of Life and Social Sciences

Member, Advisory Board,
2011- till
National Journal of Biological Sciences of Pakistan

Member, Advisory Board,
2011- till
Journal of Food Science and Technology Nepal

C. RESEARCH OUTPUTS, PROFESSIONAL ACHIEVEMENTS, PROJECTS, and OUTREACH ACTIVITIES

I. Student Research Supervision

Summary of student research supervision (2010-2021)

	COMPLETED		IN-PROGRESS	
STUDENTS	**Chair**	**Co-chair**	**Chair**	**Co-chair**
Doctoral	22	-	11	**-**
Master	100	1	8	**-**
Undergraduate Capstone Project	35	-	-	**-**
Interns from other various Institutions and countries (China, India, Nepal, France, USA, Thailand, Vietnam, Cambodia, Indonesia etc) (3-12 Months)	105	-	-	**-**

II. Research Outputs

a. Research Quality Metrics

3326	Total Number of Citations (SCOPUS)
28	h-index (SCOPUS)
5980	Total number of citations (Google Scholar)
38	h-index (Google Scholar)
85	i10-Index (Google Scholar)

b. Research Outputs

7	Patents
11	Books (Authored, Edited, Co-edited)
51	Book Chapters
150+	Referred Journals
10+	Regional and National Publications
60+	Peer-reviewed Conference Proceedings
Various	Development/ Research Reports
85+ **35+** **10+**	Presentations (As a keynote, Plenary, Invited Speakers) Research Projects (Contracted and Consultancy) Outreach Projects (Capacity Building, Training, Workshops, Seminars)

III. Research Publications

Patents

1) Fang Yuan, Breda Kennedy, Kyoung-Sik Han, **Anil Kumar Anal**, Harjinder Singh: **Encapsulation System for Probiotics During Processing**; US Patent Publication Number; 10561161B2; https://patents.google.com/patent/US10561161B2/en
2) Fang Yuan, Breda Kennedy, Kyoung-Sik Han, **Anil Kumar Anal**, Harjinder Singh **Encapsulation System for Probiotics During Processing**; Ref. No: Canadian Patent number: CA2833276A1; https://patents.google.com/patent/CA2833276C/en
3) Fang Yuan, Breda Kennedy, Kyoung-Sik Han, **Anil Kumar Anal**, Harjinder Singh **Encapsulation System for Probiotics During Processing**; Ref. No: Russian Patent number: RU2013150786A; https://patents.google.com/patent/RU2577980C2/en
4) Fang Yuan, Breda Kennedy, Kyoung-Sik Han, **Anil Kumar Anal**, Harjinder Singh: **Encapsulation System for Protection of Probiotics During Processing**. European Patent Ref. No: EP2696705 https://patents.google.com/patent/EP3549452A1/en
5) Fang Yuan, Breda Kennedy, Kyoung Sik Han, **Anil Kumar Anal**, Harjinder Singh: **Encapsulation System for Protection of Probiotics During Processing**. Ref. No: World Patent; WO2012/142153; 3654 PCT; 006943.05204, https://patents.google.com/patent/WO2012142153A1/en
6) Fang Yuan, Breda Kennedy, Kyoung-Sik Han, **Anil Kumar Anal**, Harjinder Singh: **Encapsulation System for Protection of Probiotics During Processing**. Spanish Patent Ref. No: ES2743538T3/en, Year: 01/2014 https://patents.google.com/patent/ES2743538T3/en
7) Shruti Mishra and **Anil Kumar Anal**; **Cholesteryl Ester Transfer Protein Inhibitor**; Indian Provisional Patent; India; Year: 2015

Edited and Authored Books

1) **Anil Kumar Anal** (**2022**): **Pandemics and Innovative Food Systems**: CRC Press, Taylor and Francis Group Ltd.-*In Press*
2) **Anil Kumar Anal** and Parmjit Singh Panesar (**2022**): **Valorization of Agro-Industrial Byproducts: Sustainable Approaches for Industrial Transformation; ISBN: 9781003125669;** *CRC Press; Taylor and Francis Group Limited*; https://doi.org/10.1201/9781003125679
3) Parmjit Singh Panesar and **Anil Kumar Anal** (**2022**): **Probiotics, Prebiotics and Synbiotics: Technological Advancements Towards Safety and Industrial Applications**; Wiley & Sons Co. Ltd. https://onlinelibrary.wiley.com/doi/book/10.1002/9781119702160
4) **Anil Kumar Anal** (**2019**); **Bionanotechnology: Principles and Applications**; ISBN: 9781466506992; CRC Press, Taylor and Francis Group Ltd., USA https://doi.org/10.1201/9781315116587
5) **Anil Kumar Anal** and Gerhard Schleining (**2018**); **Innovations in Food Ingredients and Food Safety**; ISBN: 978-974-8257-97-6; Asian Institute of Technology; Thailand
6) **Anil Kumar Anal** (**2017**); **Food Processing By-Products and Their Utilization**; ISBN: 978118432938 (PDF); LCCN 2017017235 (Print); Wiley-Blackwell, John Wiley and Sons Ltd. http://bit.ly/FoodProcessingBy-ProductsandTheirUtilization https://doi.org/10.1002/98781118432921

7) P. A. Salam, S. Shrestha, V.P. Pandey, **Anil Kumar Anal** (**2017**); **Water Food Energy Nexus: Principles and Practices**; ISBN: 978-1-119-24313-7; AGU-Wiley. http://bit.ly/Water-Energy-FoodNexusPrinciplesandPractices
8) Athapol Noomhorm, Imran Ahmad and **Anil Kumar Anal** (**2014**); **Functional Foods and Dietary Supplements: Processing Effects and Health Benefits**; ISBN: 978-1-118-22787-9; Wiley-Blackwell, John Wiley and Sons Ltd. http://bit.ly/FunctionalFoodsandDietarySupplementsProcessingEffectsandHealthBenefits

Book Chapters

1. Muhammad Umar and **Anil Kumar Anal*** (2022). Unravelling the Food-Nutrition-Health Nexus to Build Healthier Food Systems. In: *Pandemics and Innovative Food Systems:* CRC Press, Taylor and Francis Group Ltd.-In Press
2. Sushil Koirala, Nuntarat Boonlao, Sarina Pradhan Thapa and **Anil Kumar Anal* (2022).** Improving Food Safety and Security through a One-Health Approach- An Outlook during and post COVID-19 Pandemic. In: *Pandemics and Innovative Food Systems:* CRC Press, Taylor and Francis Group Ltd.-In Press
3. Muhammad Bilal Sadiq* and **Anil Kumar Anal (2022)**. Improving Traceability in the Food Supply Chain Management System. In: *Pandemics and Innovative Food Systems:* CRC Press, Taylor and Francis Group Ltd.-In Press
4. **Anil Kumar Anal***, Anusha Karki and Arsha Pradhan **(2022).** Traditional Foods and Their Roles in Health and Nutrition Security. In: *Pandemics and Innovative Food Systems:* CRC Press, Taylor and Francis Group Ltd.-In Press
5. **Anil Kumar Anal***, Parmjit Singh Panesar and Rupinder Kaur (**2022)**. Agro-industrial Waste as Wealth: Principles, Biorefinery and Bioeconomy. In: *Valorization of Agro-industrial Byproducts: Sustainable Approaches for Industrial Transformation.* CRC Publication.
6. Nuntarat Boonlao, Thatchajaree Mala, Sushil Koirala and **Anil Kumar Anal*** (**2022**). Bioactive Proteins and Peptides from Agro-Industrial Waste: Extraction, and Their Industrial Potential Applications. In: *Valorization of Agro-industrial Byproducts: Sustainable Approaches for Industrial Transformation.* CRC Publications
7. Suwan Panjanapongchai, Anushuya Guragain and **Anil Kumar Anal* (2022).** Production, Characterization and Industrial Applications of Biosurfactants from Agro-industrial Waste. In: *Valorization of Agro-industrial Byproducts: Sustainable Approaches for Industrial Transformation.* CRC Publication
8. Muhammad Umar, Chaichawin Chavapradit and **Anil Kumar Anal* (2022).** Production of Biopolymeric Nanomaterials and Nanofibers from Agro-industrial Waste and Their Applications. In: *Valorization of Agro-industrial Byproducts: Sustainable Approaches for Industrial Transformation.* CRC Publications
9. Sushil Koirala, Anjali Shrestha, Sarina Pradhan Thapa and **Anil Kumar Anal* (2022).** Food Loss and Waste (FLW): Environmental Concerns, Life Cycle Assessment, Regulatory Framework and Prevention Strategies for Sustainability. In: *Valorization of Agro-industrial Byproducts: Sustainable Approaches for Industrial Transformation.* CRC Publication
10. Parmjit Singh Panesar, **Anil Kumar Anal**, Rupinder Kaur (**2022**). Probiotics, Prebiotics and Synbiotics: Opportunities, Health Benefits and Industrial Challenges. In *Probiotics, Prebiotics and Synbiotics: Technological Advancements Towards Safety and Industrial Applications* (pp 1-13). Wiley. https://doi.org/10.1002/9781119702160.ch1
11. Sarina Pradhan Thapa, Sushil Koirala, **Anil Kumar Anal*** (**2022**). Potential of Probiotics as Alternative Sources for Antibiotics in Food Production Systems. In *Probiotics, Prebiotics and*

Synbiotics: Technological Advancements Towards Safety and Industrial Applications (pp172-185). Wiley. https://doi.org/10.1002/9781119702160.ch8

12. Sujitta Raungrusmee, Simmi Ranjan Kumar, **Anil Kumar Anal*** (**2022**). Probiotic Cereal-based Food and Beverages, their Production and Health Benefits. In *Probiotics, Prebiotics and Synbiotics: Technological Advancements Towards Safety and Industrial Applications* (pp 186-212). Wiley. https://doi.org/10.1002/9781119702160.ch9
13. Suwan Panjanapongchai, Chaichawin Chavapradit, **Anil Kumar Anal*** (**2022**). Microencapsulation of Probiotics and its Potential Industrial Applications. In *Probiotics, Prebiotics and Synbiotics: Technological Advancements Towards Safety and Industrial Applications* (pp 213-232). Wiley. https://doi.org/10.1002/9781119702160.ch10
14. Nuntarat Boonlao, Krisha Pant, **Anil Kumar Anal*** (**2022**). Gut Microbiome as Potential Source for Prevention of Metabolic-Related Diseases. In *Probiotics, Prebiotics and Synbiotics: Technological Advancements Towards Safety and Industrial Applications* (pp 407-440). Wiley. https://doi.org/10.1002/9781119702160.ch17
15. Sushil Koirala, Sarina Pradhan Thapa, **Anil Kumar Anal*** (**2022**). Overall Safety Considerations and Regulatory Oversight for Probiotics-based Foods and Beverages. In *Probiotics, Prebiotics and Synbiotics: Technological Advancements Towards Safety and Industrial Applications* (pp 441-461). Wiley. https://doi.org/10.1002/9781119702160.ch18
16. **Anil Kumar Anal*,** Sushil Koirala, and Smriti Shrestha (**2021**). Gut Microbiome and their Possible Roles in Combating Mycotoxins *In: Mycotoxins in Food and Beverages* (pp. 213-235). CRC Press. https://doi.org/10.1201/9781003176046-9
17. **Anil Kumar Anal* (2018)**. Bionanotechnology and Cellular Biomaterials. *In Bionanotechnology*, pp. 1-10. CRC Press. https://doi.org/10.1201/9781315116587
18. **Anil Kumar Anal* (2018)**. Nanostructured Cellular Biomolecules and Their Transformation in Context of Bionanotechnology. *In* Bionanotechnology, pp. 11-27. CRC Press. https://doi.org/10.1201/9781315116587
19. **Anil Kumar Anal* (2018).** Genomics and Bionanotechnology. *In* Bionanotechnology, pp. 28-34. CRC Press. https://doi.org/10.1201/9781315116587
20. **Anil Kumar Anal* (2018)**. Protein Engineering and Bionanotechnology. *In* Bionanotechnology, pp. 34-64. CRC Press. https://doi.org/10.1201/9781315116587
21. **Anil Kumar Anal* (2018)**. Immune Systems, Molecular Diagnostics, and Bionanotechnology. *In* Bionanotechnology, pp. 65-86. CRC Press. https://doi.org/10.1201/9781315116587
22. **Anil Kumar Anal* (2018)**. Bionanofabrication and Bionano Devices in Tissue Engineering and Cell Transplantation. *In* Bionanotechnology, pp. 87-105. CRC Press. https://doi.org/10.1201/9781315116587
23. **Anil Kumar Anal* (2018).** Immobilization of Biomolecules. *In* Bionanotechnology, pp. 106-135. CRC Press. https://doi.org/10.1201/9781315116587
24. **Anil Kumar Anal* (2018)**. Nanostructure-Based Delivery Dosage Forms in Pharmaceuticals, Food, and Cosmetics. *In* Bionanotechnology, pp. 137-155. CRC Press. https://doi.org/10.1201/9781315116587
25. **Anil Kumar Anal* (2018)**. Nanoparticles, Biointerfaces, Molecular Recognition, and Biospecificity. *In* Bionanotechnology, pp. 157-180. CRC Press. https://doi.org/10.1201/9781315116587
26. **Anil Kumar Anal* (2018).** Muhammad Bilal Sadiq and Manisha Singh (**2017**); Actual Traceability Techniques in Food Systems; *In*: *Food Traceability and Autheticity: Analytical Techniques*; Didier Montet and Ramesh Ray (Editors); Taylor and Francis Publisher Co. Ltd., ISBN: 978-1-4987-8842-7; pp 66-89

27. **Anil Kumar Anal*** (**2017**); Food Processing By-Products and their Utilization: Introduction; *In*: *Food Processing By-Products and Their Utilization*; Anil K. Anal (Editor); John Wiley and Sons Ltd., ISBN: 978118432938 (PDF); LCCN 2017017235 (Print); pp 1-10 (2017). https://doi.org/10.1002/9781118432921.ch1
28. Muhammad Bilal Sadiq, Manisha Singh and **Anil Kumar Anal*** (**2017**); Application of Food By-products in Medical and Pharmaceutical Industries; *In*: *Food Processing By-Products and Their Utilization*; Anil K. Anal (Editor); John Wiley and Sons Ltd., ISBN: 978118432938 (PDF); LCCN 2017017235 (Print); pp 89-110. https://doi.org/10.1002/9781118432921.ch5
29. Seema Medhe, Manisha Anand and **Anil Kumar Anal*** (**2017**); Dietary Fibers, Dietary Peptides and Dietary Essential Fatty Acids from Food Processing By-Products; *In*: *Food Processing By-Products and Their Utilization*; Anil K. Anal (Editor); John Wiley and Sons Ltd., ISBN: 978118432938 (PDF); LCCN 2017017235 (Print); pp 111-136. https://doi.org/10.1002/9781118432921.ch6
30. Kittima Triatanasirichai, Manisha Singh and **Anil Kumar Anal*** (**2017**); Value-added By Products from Rice Processing Industries; *In*: F*ood Processing By-Products and Their Utilization*; Anil K. Anal (Editor); John Wiley and Sons Ltd., ISBN: 978118432938; pp 277-294. https://doi.org/10.1002/9781118432921.ch12
31. Surangna Jain and **Anil Kumar Anal*** (**2017**); Bioprocessing of Beverage Industry Waste for Value Addition; *In*: *Food Processing By-Products and Their Utilization*; Anil K. Anal (Ed); John Wiley and Sons Ltd., ISBN: 978118432938; pp 295-308. https://doi.org/10.1002/9781118432921.ch13
32. Surangna Jain, Damodar Dhakal and **Anil Kumar Anal*** (**2017**); Bioprocessing of Chicken Meat and Egg Processing Industries' Waste to Value-added Proteins and Peptides; *In*: *Food Processing By-Products and Their Utilization;* Anil K. Anal (Editor); John Wiley and Sons Ltd., ISBN: 978118432938; pp 367-394. https://doi.org/10.1002/9781118432921.ch16
33. Damodar Dhakal, Sajal Man Shrestha and **Anil Kumar Anal*** (**2017**); Utilization of Beef and Pork Meat Processing Industries' Waste to Value-add; *In*: *Food Processing By-Products and Their Utilization;* Anil K. Anal (Editor); John Wiley and Sons Ltd., ISBN: 978118432938; pp 395-416. https://doi.org/10.1002/9781118432921.ch17
34. Lavaraj Devkota, Didier Montet and **Anil Kumar Anal*(2017**); Regulatorty and Legislative Issues for Food Waste Utilization*; In*: *Food Processing By-Products and Their Utilization;* Anil K. Anal (Editor); John Wiley and Sons Ltd., ISBN: 978118432938; pp 535-548.
35. P A Salam, S Shrestha, V P Pandey and Anil Kumar Anal* (**2017**); The Need for The Nexus Approach; *In*: *Water- Energy-Food- Nexus: Principles and Practices;* P A Salam, S Shrestha, V P Pandey and Anil K Anal (Editors); AGU- Wiley Publishers Ltd; ISBN: 978-1-119-24313-7; pp 3-10.
36. **Anil Kumar Anal*,** Son Chu-Ky, Samira Sarter (**2016**). Health Benefits of Nutraceuticals from Novel Fermented Foods. *In: Health Benefits of Fermented Foods and Beverages, In: Health Benefits of Neutraceuticals from Novel Fermented Foods*; Joyti Prakash Tamang (Editor); CRC Press, Taylor Francis Group. ISBN: 13:978-1-4665-8810-3.
37. Noomhorm A., **Anil Kumar Anal*,** I. Ahmad (**2014**): Functional Foods, Neutraceuticals and Probiotics as a Functional Food Component. : *In*: *Functional Foods, Dietary Supplements: Processing Effects and Health Benefits*, A Noomhorm, I Ahmad and Anil K Anal (Editors) Wiley-Blackwell Publishers, ISBN: 978-1-118-22787-9; pp 3-20 (2014)
38. **Anil Kumar Anal*,** Kishore K. Kumaree, and Mridula Thapa (**2014**). Bioactive components in foods. *In: Functional Foods and Dietary Supplements: Processing Effects and Health Benefits*; Edited by Athapol Noomhorm, Imran Ahmad, Anil Kumar Anal; 21-59; Wiley-Blackwell., ISBN: 978-1-118-22787-9; pp 21-59 (2014).

39. Nina K.M. Arplace, **Anil Kumar Anal*** (**2014**): Food Processing By-products as Functional Foods and Neutraceuticals**.** *Food and Dietary Supplements: Processing Effects and Health Benefits,* Athapol Noomhorm, Imran Ahmad, Anil Kumar Anal (Editors), Wiley- Blackwell, ISBN: ISBN: 978-1-118-22787-9; pp 159-186 (2014)
40. Taslima Ayesha Aktar Nasrin, **Anil Kumar Anal*** (**2014**); Resistant Starch: Properties, Preparation and Applications *In: Functional Foods and Dietary Supplements: Processing Effects and Health Benefits,* edited by Athapol Noomhorm, Imran Ahmad, Anil Kumar Anal; Wiley-Blackwell., ISBN: 978-1-118-22787-9; pp 227-254 (2014). https://doi.org/10.1002/9781118227800.ch9
41. Alisha Tuladhar, **Anil Kumar Anal*** (**2014**): Recent Advances in Applications of Encapsulation Technology for Bioprotection of Phytonutrients in Complex Food Systems. *In: Functional Foods and Dietary Supplements: Processing Effects and Health Benefits;* Athapol Noomhorm, Imran Ahmad, Anil Kumar Anal (Editors), Wiley-Blackwell., ISBN: 978-1-118-22787-9; pp 363-386 (2014)
42. **Anil Kumar Anal*,** Imran Ahmad, Jiraporn S, Athapol Noomhorm (**2014**): Sustainable Food Grain Processing. *In: Sustainable Food Processing*, B K Tiwari, T Norton and N M holden (Editors); Willey – Blackwell Publishers Ltd, ISBN: 9780470672235; pp 269-294 (2014) https://doi.org/10.1002/9781118634301.ch11
43. Sutee W, Athapol Noomhorm, J.M. Regenstein, **Anil Kumar Anal*** (**2013**): Value-added Bioprocessing of Fish Waste to Gelatin. *In*: *Gelatin: Production, Applications and Health Benefits,* **Gokhan Boran** (Editor), Nova Science Publishers., ISBN: 978-162417-671-5; (2013)
44. **Anil Kumar Anal** (**2013**): Food Processing By-products. *In: Handbook of Plant Food: Phytochemicals: Sources, Stability and Extraction*, B Tiwari, T Norton, N M. Holden (Editors) Wiley-Blackwell Publishers Ltd., ISBN: 978-1444338102; pp 180-198 (2013)
45. **Anil Kumar Anal***, Athapol Noomhorm, Punchira Vongsawasdi (**2013**): Protein Hydrolysates and Bioactive Peptides from Seafood and Crustaceans Waste: Their Extraction, Bioactive Properties and Industrial Perspectives*. In: Marine Proteins and Peptides: Biological Activities and Application***, Se-Kwon Kim** (Editor), Wiley-Blackwell, Publisher Ltd ISBN: 978-1-1183-7506-8; pp 709-736. https://doi.org/10.1002/9781118375082.ch36
46. **Anil Kumar Anal*,** Alisha Tuladhar (**2013**): Biopoymeric Micro- and Nanoparticles: Preparation, Characterization and Industrial Applications; *In: Advances in Polymer Science: Multifaceted Development and Applications of Biopolymers towards Biology,* Biomedical and Nanotechnology; P.K. Dutta and J. Dutta (Editors), Springer Ltd.; pp 269-296.
47. Mohammad Abbas Mahmood, Sunandan Baruah, **Anil Kumar Anal**, Joydeep Dutta (**2012**): Microbial Pathogen Inactivation Using Heterogeneous Photocatalysis. *In: Environmental Chemistry for a Sustainable World,* Springer Netherlands., ISBN: 978-94-007-2439-6. https://doi.org/10.1007/978-94-007-2439-6_13
48. **Anil Kumar Anal** (**2010**): Controlled Release Dosage Forms. *In: Pharmaceutical Sciences Encyclopedia: Drug Discovery, Development and Manufacturing,* Edited by Shayne C. Gad, Wiley Blackwell., ISBN: 9780470571224.
49. **Anil Kumar Anal** (**2007**): Controlled Release Dosage Forms. *In: Pharmaceutical Manufacturing Handbook: Production and Processes,* Edited by Shayne C. Gad, Wiley Blackwell., ISBN: 9780470259818. https://doi.org/10.1002/9780470259818.ch11
50. **Anil Kumar Anal**, Deepak Bhopatkar, Seiichi Tokura, Hiroshi Tamura, Suwalee Chandrkrachang (**2010**): Chitosan Coated Alginate Microcapsules for Controlled Drug Delivery Systems. *In: Chitin and Chitosan in LIfe Sciences*, First edited by T Uragami, k Kurita, T Fukamizo, Kodansha Scientific Ltd., ISBN: 4-906464-13-0.

51. **Anil Kumar Anal**, Suwalee Chandrkrachang, Piyabutr Wanichpongpan (**2000**): Pore Size Control in Microporous Chitosan Membranes. *In: Chitin and Chitosan in Life Sciences***,** T. Uragami, K Kurita, T Fukamizo (Editors), Kodansha Scientific Ltd., ISBN: 4-906464-13.

Peer-reviewed journal articles (*Corresponding Author)

1. Muhammad Umar, Uracha Ruktanonchai, **Anil Kumar Anal* (2022)**.Compositional and Functional Analysis of Freeze-Dried Bovine Skim Colostrum Powders. *SSRN*. http://dx.doi.org/10.2139/ssrn.4226729- (*Pre-print article, in Peer-reviewing process)*
2. Khwanchol Kampan,Takuji W. Tsusaka, and **Anil Kumar Anal* (2022),** Adoption of Blockchain Technology for Enhanced Traceability of Livestock-based Products. *Sustainability;* https://doi.org/10.3390/su142013148
3. Sujitta Raungrusmeea, Sushil Koirala, **Anil Kumar Anal*(2022).** Effect of Physicochemical Modification on Granule Morphology, Pasting Behavior and Functional Properties of Riceberry Rice (Oryza sativa L.) Starch. https://doi.org/10.1016/j.focha.2022.100116
4. Kwanhatai Thongpalad, Sushil Koirala and **Anil Kumar Anal* (2022)**. Risk perceptions, on-farm handling, and food safety practices among egg producing farmers in Thailand. *Journal of Agribusiness in Developing and Emerging Economies.* https://doi.org/10.1108/JADEE-05-2021-0110
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3. Manisha Anand, Smriti Shrestha, Manisha Singh and **Anil Kumar Anal** (**2018**); Extraction and in vitro Evaluation of Antidiabetic Efficacy of Bioactive Extracts from Okra (Ablemoschus esculetus); In: Innovations in Food Ingredients and Food Safety (ISBN:978-974-8257-97-6); Anil Kumar Anal and Gerhard Schleining (Editors); *1st International Conference on Innovations in Food Ingredients and Food Safety*; 12-13 September 2018, Bangkok, Thailand.

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7. Su Hlaing Chien, **Anil Kumar Anal** and Avishek Datta (**2016**); Effects of Current Postharvest Practices and Identification of Fungal Species in Peanut Kernels in Myanmar; *Third Science and Technology Innovation Week*; 12-16 May 2016; Hanoi,
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22. **Anil Kumar Anal** (**2013**); Antibiotic and Sanitizer In Food Production Systems: Concerns On Antibiotic Resistance And Public Health; In: *Expert Workshop Antimicrobial Resistance* 2013; 4-6 February 2013; Bangkok, Thailand\
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2. Anil Kumar Anal, Prabhat Kumar, Abha Mishra and Avishek Datta *(**2018**); Estimating Food Waste: A Study of Existing Behavioral Practices at the Asian Institute of Technology (AIT); FAO Report*
3. A.C. Tanaka, C.N.H. Doll, T. Dalton, Y. Suzuki, M. Hapsari, H. Kusnanto, Anil K. Anal, R. Dornsawasdi and B. Pulpoka; (**2014**) ProSPER.Net Young Researchers' School: Building Research Capacity for Sustainable Development; In: ProSPER.Net: Transforming Higher Education and Creating Sustainable Societies; Published by UNU-IAS Japan pp 127-144.
4. Rosa Rolle, Prabhat Kumar, Abha Mishra and **Anil Kumar Anal** (**2014**); High-level Multistakeholder Consultation on Food Losses and Food Waste in the Asian Pacific Region; SAVE-FOOD ASIA PACIFIC CONSULTATION REPORT.
5. **Anil Kumar Anal**, Prabhat Kumar, and Avishek Datta (**2014**); A Feasibility Report on "Innovative Ideas on Agri-food Production, Save Food and Biopackaging Systems"; Submitted to Frost and Sullivan
6. **Anil Kumar Anal** (2014); Integrated Energy-Food Systems to Climate Smart Food Production for Postharvest Losses and GHG Emissions in South East Asia; Submitted to Food and Agriculture Organizations of United Nations.
7. **Anil Kumar Anal**, Tom Crawley, Claire Koury and Sloan Slates (**2013**); State of Play Report on Food Security, Food Safety, Health and Water Management; Published by DLR Heinrich-Konen-Strasse 1 53227 Bonn, Germany;

IV. Research grants and sponsored projects (Selected)

Projects at Asian Institute of Technology, Thailand (As Principal Investigator/Co-Principal Investigator)

1) Thailand Graduate Institute of Science and Technology Fund (PI)(Industry Support Fund)

This project aims to support Masters and Ph.D. Scholars for conducting their following research.

Project Titles:

i) Extraction of Protein Hydrolysates and Peptides from Agro-industrial Waste and Development of Their Nanoparticles in Conjugation with Carbohydrates to Enhance Antimicrobial Properties.

ii) Formulation Optimization and Characterization of Protein-Polysaccharide Conjugate Based Encapsulation System to Enhance Stability, Digestibility and Bioaccessibility of Lutein

iii) Enhacing Bioaccessibility and Oral Bioavailabilty of Colostrum Proteins in Food and Beverages by Engineered Nanoparticulate-based Delivery Systems

iv) Develop Protein- Polysaccharide Based Edible Ink to Develop 3-D Printed Super Foods.

v) Evaluation of Antioxidant Profiles and their Bio accessibility in the Meals of Ageing People of Thailand

vi) Enhance the Nutritional Quality and Bio Accessibility of Protein Enriched Plant-based Food Products by Lactobacillus Fermentation.

Year: 2020- 2026

Funding Agency: National Science and Technology Development Agency, Ministry of Science Ministry of Higher Education, Science, Research and Innovation, Thailand
Project Implementation: Industrial Project

2) Capacity Building through Faculty Empowerment and Promoting Entrepreneurship and Support Startup Ecosystem

A capacity building project to train the students of University of Agriculture of India for advancing the knowledge in agri-food processing, food safety, agri-business start up skills enhancement etc.

Year: 2022- 2024
Funding Agency: World Bank fund through Indian Council of Agricultural Research
Project implementation country: India

3) **Adopting Circular Bioeconomy in Thailand Food Supply Chain Through Industry-Academia Collaboration (PI)**

An interdisciplinary and transnational project is aiming to facilitate transformational change in Thai food supply chain from linear to circular using a holistic approach by enhancing safety, quality, and efficiency of the food supply chain and identify how to turn food waste to valuable resources through valorization.

Year: 2021- 2022
Funding Agency: Newton Fund through British High Commission (BHC), UK and National Research Council of Thailand (NRCT), Thailand
Project implementation country: Thailand

4) Climate Change Adaptation in Agriculture for Enhanced Recovery and Sustainability of Highlands in Thailand (Co-PI)

This project aims to reduce the vulnerability and enhance adaptive capacity of highland communities and ecosystems to cope with current and projected climate change impacts in Nan Province of Thailand.

Year: 2021- 2023
Funding Agency: Asian Development Bank (ADB)
Project Implementation Country: Thailand

5) Valorization of Tropical Fruit By-Products for the Extraction of High Value Compounds (Industry Support Fund) (PI)

This project aims at development of a sustainable and efficient valorization strategy for the utilization of these by-products to recover high-value compounds using green technologies which aims at zero-waste process and will provide dual benefits of management as well as reduction of environmental pollution.

Year: 2020- 2023
Funding Agency: ASEAN- India Collaborative Fund
Project Implementation Country: India, Thailand and Vietnam

6) FOODI: An Erasmus+ capacity building project on Food Safety and Processing (PI)

FOODI project aims to develop an extensive post-graduate program in Food Processing & Innovation that will remain high in the regional priorities agenda academically but also in terms of policy, for a long time after the project has been completed. The consortium consists of 16 organizations from 3

EU countries and 4 Asian countries. The 10 HEI from partner countries (PCs) comes from 3 different countries in Asia (Malaysia, Cambodia, and Thailand).
Year: 2019-2023
Funding Agency: European Union
Project Implementation Countries: Thailand, Malaysia, Cambodia

7) Technology Clinic for Agro-Food SMEs in Thailand (Co-PI)
Year: 2019-2022
Fuding Agency: United Nations Development Agency (UNDP) through Climate Technology Centre and Network (CTCN)
Project Implementation Country: Thailand

8) Bangchak Initiative and Innovation Centre at AIT (BIIC@AIT) (Industrial Project) (Co-PI)
The purpose of Bangchak Initiative and Innovation Centre at AIT (BIIC@AIT) is to stimulate the establishment and growth of green technology-based start-up companies and other compatible businesses.
Year: 2018-2023
Agency: Bangchak Co-operation Limited, Thailand
Project Implementation: Industrial Project

9) Sustainable Seafood and Nutrition Security (SSNS) (Co-PI)
Sustainable Seafood and Nutrition Security (SSNS) is a curriculum development project co-funded by EU Erasmus+ Programme to address the issue of sustainability of seafood production, supply and consumption through need-based higher education, and vocational training.
Year: 2018-2022
Funding Agency: European Union (EU)
Project Implementation Countries: Thailand, and Indonesia

10) Food Loss Pilot Project at Thai Union Frozen Products Factory (TUF) (PI)
The aim of this project is to conduct preliminary research on valorization of food waste at seafood processing industries.
Year: 2021-2022
Funding Agency: Thai Union Frozen Products Factory (TUF)
Project Implementation: Industrial Project

11) Social Wellbeing and Mental Health Challenges of Employee of SMEs in Emerging Economies (PI)
Year: 2020- 2021
Funding Agency: Global Challenges Research Fund (GCRF), UKRI
Project Implementation Countries: India, Thailand, UK

12) ASI-FOOD: An Erasmus+ capacity building project on Food Safety (PI)
The Asifood project is a capacity building project in the field of higher education involving collaboration among thirteen partners from Cambodia, Thailand, Vietnam, Austria, Belgium, Italy, and France.
Year: 2015 - 2020

Funding Agency: European Union (EU)
Project Implementation Countries: Thailand, Cambodia, Vietnam

13) Industrial Project for Development of Innovative and Quality Ingredients for Food and Feed and Capacity Building (Industrial Project) (PI)

The project aims to upgrade and enhance the employee towards research and innovation in food and feed industries.

Projects:

i) Feed formulations and Nutrigenomics: In vivo study in Poultry
ii) Encapsulation of Probiotics in Feed Pellet Formulations
iii) Enhancing the Water Holding Capacity of Poultry Meat and Design of Infrared Cooking Oven

Year: 2011- 2020
Funding Agency: CPF Company Ltd. Thailand and Others
Project Implementation: Industrial Project

14) Food Loss and Waste for High Value (PI)

This project aimed to develop a draft regional strategy on Food Loss and Waste (FLW) and Valorization for High Value and set up a dynamic regional platform for future activities. This project aimed to estimate the postharvest loss, losses and waste during the industrial processes and at the retailers and proposed some effective strategies, policy and innovative approaches to reduce and manage those waste.

Year: 2018-2021
Funding Agency: Food and Agriculture Organization (FAO) of United Nations
Project Implementation Countries: China, Thailand and Nepal

15) Management of Agribusiness Innovation Centre in Nepal and Capacity Building Program on "Innovative Food Product Development and Innovations in Agri-Business" in Nepal (PI)

During this project, training facilitation was provided to SMEs in Agri-Business in Nepal to nurture start-ups and SMEs and innovators in the agribusiness sector through business incubation from conceptualization, implementation and scaling up.

Year: 2018-2019
Agency: World Bank
Project Implementation Country: Nepal

16) Capacity Building through Faculty Empowerment and Promoting Entrepreneurship and Support Startup Ecosystem (PI)

A capacity building project to train the students of University of Agriculture of India for advancing the knowledge in agri-food processing, food safety, agri-business start up skills enhancement.

Year: 2019- 2022
Agency: World Bank Fund through Indian Council of Agricultural Research
Project Implementation Country: India

17) **Support to Aquaculture Capacity Development in Myanmar (Co-PI)**
Year: 2020-2022
Agency: GIZ
Project Implementation Country: Myanmar

18) Save Food in Asia and the Pacific

Year: 2013-2017
Agency: United Nations' Food and Agriculture Organization (FAO)
Project Implementation Countries: Countries of Asia Pacific

19) SEA-EU NET 2-EU-ASEAN S&T Cooperation to jointly Tackle Societal Challenges (PI)

SEA-EU-NET 2 project focused on three societal challenges: Health, Food security and safety, and Water management, where the greatest opportunities can be leveraged from joint EU-SEA research.
Year: 2012-2018
Funding agency: European Union (EU)
Project Implementation Countries: Southeast Asian Countries

20) Exploration of Bioactive Value-Added Compounds from Dammar and Seedlac (PI) (Industrial Project)
Year: 2015-2019
Agency: Thevaraya Co.Ltd, Thailand
Project Implementation: Industrial Project

21) Development of Anti-Fungal Acrylic Fiber for Novel Application Product and their Safety Evaluation (Industrial Project) (PI)
Year: 2012-2020
Agency: Thai Acrylic Company Ltd,
Project Implementation: Industrial Project

22) Sustain and Enhance Cooperation on Sustainable Development Research for Local Resource Utilization and Efficiency (SUSTAIN EU-ASEAN) (PI)

The SUSTAIN EU-ASEAN project aimed at establishing a more sustainable and integrated research and innovative cooperation on emerging technologies between EU and South East Asia in the areas of biotechnological methods of raw material utilization and resource efficiency.
Year: 2013—2018
Agency: European Union
Project Implementation Countries: Southeast Asian Countries

23) Taking Stock of How Smart Food Production Can Reduce Food Loses and GHG Emission (PI)

The objective of this project was to take stock of existing experiences, constraints, and opportunities for reducing food losses and GHG emissions throughout the agri-food chain.
Year: 2013-2014
Agency: Food and Agriculture Organization of United Nations
Project Implementation Countries: Southeast Asian Countries

24) Health Food Traditions of Asia (PI)

A focus study was conducted to understand linkages between traditional practices and health through this project.
Year: 2015 –2016
Agency: Ministry of Environment, Japan
Project Implementation Countries: Thailand, Indonesia, India, Nepal and Malaysia

25) **AIT green campus Initiatives projects for Promoting Participatory Homestead Sustainable Vegetable Production to AIT Community (PI)**
Year: February 2014 – January 2015
Agency: ADEME, France

26) Implementation of the SAVE FOOD ASIA PACIFIC Campaign (Co-PI)
The FAO works together with the Asian Institute of Technology towards the implementation of awareness campaign and strategy development.
Year: 2012-2015
Agency: Food and Agriculture Organization of the United Nations
Project Implementation Countries: Countries at Asia Pacific

27) **Effect of Shrimp Waste Fermented Products on Growth and Disease Protection of Rice and Chili (Industrial Fund)** (PI)
Year: April 2012- March 2015
Agency: Govt of Indonesia
Project Implementation: Industrial Project

28) Facilitating the Bi Regional EU-ASEAN Science and Technology Dialogue (SEA-EU-NET Partner in Science) (PI)
The project activities included the implementation of join for facilitation and strengthening the bi-lateral dialogue, activities to provide information on the EU FP7 in SEA.
Year: Apr-2011 – Oct-2013
Agency: European Union
Implementation Countries: Southeast Asian Countries

29) Production of Bioethanol and Biomaterials from Oil palm Biomass: A study of Feedstock Sustainability, Technological Efficiency and Social Applicability (Co-PI)
Year: October 2010-May 2013
Agency: Regional Program "SDCC/AIT- France Network"
Fund: 40000 US Dollars

30) Mutton Quality of Northern Ethiopian Sheep Breed as Affected by Genotype and the Environment (PI)
Year: 2011-2013
Agency: World Bank
Project Implementation Country: Ethiopia.

D. Awards

1. Lifetime Service Award and Achievement Token of Appreciation by Nepal Veterinary Association, (2022).
2. Research Leader Award during "Green Innovations Challenge-2017"; Organized by PTT, Thailand, 2017

4. **Life Membership Award (Special Achievement)** Award of *Nepal Veterinary Association (NVA)* in recognition and Advancement of Scientific Development; (2011).
5. Top reviewer award in 2007-2009 for Exceptional Contribution to Quality and Success of *Food Hydrocolloids Journal*, Awarded by Elsevier, United Kingdom (2010).
6. Most Cited Paper Award by Elsevier Publications, (2009).
7. Research Fellowship, University of Santiago de Compostela, Spain (2000-01).
8. Research Fellowship, *Kansai University*, Osaka, Japan, (2000)
9. Scholarship awarded by the *Austrian Government* to pursue M.Sc. in Bioprocess Technology (1997-98)
10. Scholarship awarded by Food and Agriculture Organization of the United Nations to pursue *Undergraduate* study in Doctor of Veterinary Medicine (1990-95)

E. Membership in academic and professional societies/associations

1) **Professional Member**, *Institute of Food Technologists (IFT)*,
2) **Professional Member,** Royal Society of New Zealand,
3) **Life Member;** Nepal Food Scientists and Technologies Association (NEFoSTA)
4) **Life Member,** Nepal Veterinary Association (NVA)

F. Special Honors and Awards

Keynote, Invited Speakers, Panel Experts, Chairperson in International Conference, Workshops and Other Academic Activities

1) **Expert and Speaker (2022)***: Waste Valorization from Agro-Industrial Processes: Technological Interventions for High Value Produce; In: Training on "Adopting Circular Economy in Food Supply Chain Systems"; 27 July 2022, Thailand.*
2) **Invited Speaker (2022):** Bio Circular Green Economy in Food and Agriculture: Perspectives and Technological Interventions; In: *General Assembly Meeting of Food Processing Industries Club Thailand; 21 July 2022; Thailand*
3) **Keynote Speaker and Panel Expert (2022):** Future Foods and Emerging Trends: Challenges, Opportunities and Sustainability. In: *Expert Workshop on "Smart and Innovative Processing Towards a Safe and Sustainable Food System";* 29 June- 1 July 2022; Bangkok, Thailand.
4) **Invited Speaker and Panel Expert (2022):** Agro-Industrial Waste and Bio Circular Green Economy: Perspectives and Technological Interventions. In: *Webinar on "BCG Model and the Food and Agriculture Sector", organized by National Research Council of Thailand, Ministry of Foreign Affairs Thailand, United Nations Development Program,* 24 June 2022.
5) **Keynote Speaker** (**2022**): Sustainable and Advanced Technology in Eco-packaging. In: *International Scientific Day under the theme of Smart Technology for Sustainable Economic Growth*; 5-6 May 2022. Phnom Penh, Cambodia.
6) **Invited Keynote Speaker (2022)**: Probiotics, Paraprobiotics, Postbiotics in Traditional Fermented Foods: The emerging Sources of Biotherapy and Functional Foods in *International Conference for Nutrition, Food Safety and Health: From Childhood to Elderly*. 11 March 2022, Taipei, Taiwan.
7) **Invited Keynote Speaker (2022):** Paraprobiotics-Postbiotics in Traditional Fermented Foods: The emerging Sources for Biotherapy and Functional Foods in *4th International Conference on Bioscience and Biotechnology (ICBB-2022)*; 5-7 March 2022, Nepal

8) **Guest Lecture (2022):** Agri-food Waste Valorization for high Value; 10 February 2022. Kasetsart University, Thailand
9) **Invited Keynote Speaker** (**2021**): Food Processing Waste using Green Technology to High-Value Ingredients" in an *EU-ASEAN Dialogue Series on GreenTech & Innovation Mapping Series on "Sustainable Food Chain*" held on 30 November 2021, organized by European Commission (EC) and ASEAN Secretariat.
10) **Invited Keynote Speaker (2021):** Sustainable and Advanced Technology in Eco-Packaging, Conference: *The future for Sustainable Eco-packaging*: 3-4 September 2021; Chiangmai, Thailand
11) **Invited Lecture (2021):** Biotechnological approaches for biodegradation of plastics/microplastics and generation of bioplastics: Inspired by nature: *MPA Lecture Series*. 3 September 2021. Asian Institute of Technology.
12) **Invited Panel Speaker (2021):** Building SME's Capacity on Climate Action - Experiences from South- East Asia, Side event at the Asia Pacific Climate Week Bangkok, 8 September 2021. Thailand
13) **Keynote Speaker (26-27 September 2019):** *Valorization of Food Waste and By-products as Potential Bioresources for Nutraceuticals, Bioactive Compounds and Functional Foods; In: International Conference for Food Safety and Health*, 26-27 September 2019. Taiwan.
14) **Guest Speaker (2019):** *Emerging Trends and Innovations in Quality Ingredients in Food and Feed Industries*, In: Workshop Organized by Chitrlada Institute of Technology, Bangkok, Thailand. 10 May 2019.
15) **Keynote Speaker (2019)**: *Biopolymeric-based Emulsion Systems and Their Effects During Processing, Digestibility and Bioaccessibility of Bioactive Compounds in Complex Food Systems;* In: International Conference on "*Technological Innovations for Integration of Food and Health (TIIFH 2019)*; 14-16 February 2019. India
16) **Keynote Speaker (2018)**: In: *International Conference on "The Future of Agro-Industrial Waste*", 13-15 June 2018. France
17) **Panelist and Lead Expert (2017)**: In: *Sustainable Agro-Food. Platform; UNESCAP*, 26-27 September. Thailand
18) **Panelist and Lead Expert (2017)**: In: Regional Meeting on Agricultural "*Biotechnologies in Sustainable Food Systems and Nutrition in Asia Pacific*"; 10-13 September 2017. Kuala Lumpur, Malaysia.
19) **Keynote Speaker (2017):** In: Second International Symposium on Sustainable Agriculture and Agro-industry (ISSAA 2017); 28-29 March 2017. Nakhon Si Thammarat, Thailand
20) **Plenary Speaker (2017):** In: Third International South Asian Biotechnology Conference (ISABC 2017), 16-18 March 2017. Kathmandu, Nepal
21) **Keynote Speaker (2016):** In: The First International Conference on Science and Technology (ICST); 30 November- 2 December 2016. Lombok, Indonesia
22) **Keynote Speaker (2016):** In: International Conference on "Education of Food Science and Technology to Upgrade Small and Medium Enterprises"; 22-24 September 2016. Yangon, Myanmar.
23) **Invited Speaker (2016)**: In: Southeast Asian Vegetable Symposium (SEAVEG 2016), 5-7 September 2016. Putrajaya, Malaysia
24) **Chairperson (2016);** International Workshop on "Use of Technology in Water and Environment Systems: Improving the Understanding and Minimising the Socioeconomic, Health and Environmental Impacts", 10-12 May 2016. Hanoi, Vietnam.
25) **Keynote Speaker (2016):** Food-Water-Enenrgy Nexus; In: EIR-A Seminar (Ecole Internationale de Researchers Agreenium); 5-7 April 2016. Montpellier, France

26) **Keynote Speaker and Expert (2015):** *"International Workshop on Bioencapsulation Technology Applied in Food, Feed, Nutrition and Breeding"*; 7-13 June 2015. Nha Trang, Vietnam
27) **Keynote Speaker (2014)**: Bioencapsulation of Bioactive Compounds: Controlled Release and Enhanced Bioavailability In: *International Pediatric Conference*"; 12-14 December 2014. Pakistan.
28) **Keynote Speaker (2014)**: Bioprocessing and Delivery of Neutraceutically Relevant Fractions from Herbal, Microbial and Vegetal Matrices"*International Workshop of Chemistry: Chemistry for Better Life*"; 28-29 October 2014. Bali, Indonesia
29) **Chairperson (2014)**; Expert Workshop on "Climate Change and Water Resources: Knowledge Gaps and Research Needs"; 18 January 2014. Bangkok, Thailand.
30) **Invited Guest Lecture (2013):** Institute of Technology, Surabaya, Indonesia. 5-9 November 2013.
31) **Invited Resource Person and Panelist**: *ProSPER.Net Young Researchers' School*, Bangkok, Thailand (2013)
32) **Keynote Speaker (2013)**: Micro-/Nanoencapsulation of Bioactive Compounds and Live Cells to Enhance Physical Stability and for Gastrointestinal Targeted Delivery; In: International Workshop on *Exploring Biodiversity for Sustainable Development in Southeast Asia (EBSEA)*, 16-17 September 2013. Hanoi, Vietnam
33) **Keynote Speaker (2013)**: Bioprocessing of Crustacean Waste to Value-Added Products; In: International Forum *of High Value Utilization and By-Products; 24-26 May 2013. Qingdao, China;*
34) Invited Speaker (**2013**); Antibiotic and Sanitizer In Food Production Systems: Concerns On Antibiotic Resistance And Public Health; In: *Expert Workshop Antimicrobial Resistance* 2013; B4-6 February 2013. Bangkok, Thailand
35) **Keynote Speaker (**2013)**:** Encapsulation of Probiotics to Enhance Physical Stability and for Colon Targeted Delivery; *The 4th International Conference of Indonesian Society for Lactic Acid Bacteria* (4th IC-ISLAB), 25-26 January 2013. Yogyakarta, Indonesia
36) **Resource Person and Panelist:** ProSPER.Net Young Researchers School "*Building a Resilient Society in Asia*"; Yogyakarta, Indonesia (**2013**).
37) **Keynote Speaker** (**2012**); Quality Preservation and Cost Effectiveness in the Extraction of Neutraceutically-Relevant Fractions from Herbal, Microbial and Vegetal Matrices; In: *1st Workshop on Herbal Therapy in Fish Farming: from Ethnobotany to Sustainable Aquaculture and Food Safety*, Vietnam
38) **Lead Expert and Panelist (2012):** An Interactive Workshop on "Societal Challenges and Role of Science & Technology Towards Food Security, Environmental Sustainability and Wellness in Developing Countries by 2020", 2021 September 2012. Yogjakarta, Indonesia.
39) **Invited Lead Expert (2012):** Stakeholder Workshop for Developing the Project; 11-12 September 2012. Bangkok, Thailand.
40) **Invited Speaker** (**2012**); Prevalence, Antibiogram Study and Preservation Techniques Against Staphylococcus aureus and Salmonella in Poultry Meat; In: *6th Asian Conference on Food and Nutrition Safety*; Singapore.
41) **Invited Speaker** (**2012**) Engineered Bioencapsulation of Bioactive Compounds for Controlled Gastrointestinal Passage to Enhance the Bioavailability; In: *Franco-Thai Symposium*, Bangkok, Thailand
42) **Co-Chairperson (2010**); Fifth International Conference on Innovations in Food and Bioprocess Technology; 7-9 December 2010 Bangkok, Thailand.

43) **Invited Speaker** (**2010**); Climate Change and Microbial Ecology: Possible Impacts on Food Safety; In: *International Conference on Biodiversity, Livelihood and Climate Change in the Himalayas*, Kathmandu, Nepal.
44) **Keynote Speaker (2009**). Microencapsulation in Bioprocess and Bioseparation Technology; In: *International Conference on Separation Processes*, 202-22 October 2009. Varanasi, India
45) **Invited Speaker** (**2008**) Biopolymeric particles for encapsulation of live cells- Biotransport and biocompatibility considerations; In: *Particles Synthesis, Characterization and Particle-Based Advanced Materials*, Particles 2008 Conference, Orlando, USA.
46) **Invited Speaker** (**2007**). Technologies for Bioprotection of Marine Omega-3 Fatty Acids; In: *New Zealand & Australian Nutrition Societies Conference*, Auckland, New Zealand.

G) Participation as Convenor, Chairperson, Instructor, Expert etc in workshops, short courses etc. relating to improvement of teaching and supervision

1) **Convenor "Workshop on Implementation of Participative Teaching Methods and Digital Tools in Higher Education Teaching",** 1-2 August 2022, Bangkok, Thailand.
1) **Convenor and Instructor "Training on Adopting Circular Economy in Food Supply Chain"**; 27 July 2022; Thailand.
1) **Chairperson "International Conference on Innovations in Food Ingredients and Food Safety** (IFIFS-2018) in collaboration with ISEKEI, SEA-ABT and BOKU University during 12-13 September 2018.
5) **Technical Workshop on Module Design**; 22-23 June 2016, Hanoi, Vietnam
6) **Governance and Change Management Seminar to Develop Course Modules in Relation to the Needs of Industries**; 15-16 November 2016; Bangkok, Thailand
7) **Training on "Ethics and Use of Animals in Research"**, by National Research Council, Thailand (NRCT), April 2016
8) **Organizer, Resource Person and Panelist; "ProsPER.NET Young Researchers' School**; Bangkok, Thailand, 2013
9) **Resource Person and Panelist; "ProSPER.NET Young Researchers' School**", Yogyakarta, Indonesia, 2012
10) **Risk Assessment Training; FHI International**; 9-11 June 2011; Bangkok, Thailand
11) **"Research Based Management (RBM**)", AIT, Thailand (2010)
12) **Workshop on "PhD Supervision",** Massey University, New Zealand; 26 April 2006.
13) **Training on "Research Management Skills Certificate**", Massey University, New Zealand; 12 December 2005
14) **Training on "Guidelines for Animal Use in Research, Testing and Teaching**". Otago University, New Zealand; 01-05 February 2004.
15) **Training on "Research Administration" organized by Otago University**, New Zealand; 30 March 2004
16) **Workshop on Science and Technology Information on Biosafety;** Organized by NSTDA, Thailand, ICSU, CODATA and UNESCO; 10-14 January 2000
17) **Certificate Course "Advances in Plant Molecular Biology**", by Wageningen University, The Netherlands,

List of Referee:

1) Distinguished Professor Harjinder Singh
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DECLARATION & SIGNATURE

I, the undersigned, certify that, to the best of my knowledge and belief, this biodata correctly describe myself, my qualifications, and my experience.

22 September 2022

ANNEX

A.1 Doctoral Students (As Main Supervisor at AIT during 2010-2022)

S.N	Name of students (Completed)	Dissertation Titles	Nationality	Completed Year
COMPLETED				
1	Dr. Zelealem Tesfay Gebretsadik	*Enhancing growth rate, carcass yield and meat quality of Abergelle and Begait sheep breeds through feed management*	Ethiopia	2013
2	Dr. Taslima Akthar	*Production of Resistant Starch from Green Banana Peel and Its Pulp for Encapsulation of Fish Oil*	Bangladesh	2013
3	Dr. Ali Akbar	*Prevalence and Bio-control of Foodborne Pathogens (Salmonella and Staphylococcus aureus) in Raw and Ready-to-eat Poultry Meat*	Pakistan	2014
4	Dr. Dilip Jha	*Fish Seed health Management in Nepal and Potential Role of Probiotics*	Nepal	2015
5	Dr. Surangna Jain	*Green Technology Based Extraction of Protein Hydrolysates from Chicken Eggshell Membrane, Characterization of their Bioactive Properties and Formation of Stable Food Emulsions*	India	2016
6	Dr. Muhammad Bilal Sadiq	*Assessment of Antimicrobial Resistance of Food-borne Enteric Pathogens and Evaluation of Natural Plant Extracts as Remedials*	Pakistan	2016
7	Dr. Zainia Rehmat	*Development of Robust and Low-cost Biopolymer-based Surface Plasmon Resonance Nano Immunosensor for Detection of Ochratoxin A in coffee*	Pakistan	2016
8	Dr. Mano Suwannakam	*Influence of far Infrared and Superheated Steam Cooking on Chicken Breast Meat*	Thailand	2016
9	Dr. Rakesh Jadhav	*Evaluation and maintenance of post-harvest quality changes of fresh Nile Tilapia (Oreochromis niloticus) and its fillets by using Moringa (Moringa oleifera) extract and chitosan*	India	2018
10	Dr. Muhammad Saleem Kalhoro	*Isolation, identification and characterization of probiotics from raw buffalo milk and evaluation of their biopreservative potential*	Pakistan	2018

11	Dr. Ong-Rad Praepanitchai	*Development and Evaluation of Encapsulated Probiotics (Lactobacillus plantarum TISTR 050) in Alginate-Soy Protein Hydrogel Beads in Mango Juice to Enhance their Survival and Functionality*	Thailand	2018
12	Dr. Zia Ur Rehman	*Enhanced Lipid and Carbohydrate Contents of Autotrophic Microalgal Species in Wastewater and Nitrogen Limiting Synthetic Media for Biofuel Production*	Pakistan	2019
13	Dr. Su Hliang Chein	*Assessment of Fungal Contamination in Peanuts and Its Prevention by Chitosan and/or Extracts from Lactobacillus Plantarum during various Storage Conditions*	Myanmar	2019
14	Dr. Tayzar Aye Cho	*Measurement of Phosphorous Regulatory Genes Expression and Enhanced Utilization of Dietary Phosphorous by Encapsulated Phytase in Broilers*	Myanmar	2019
15	Dr. Seema Medhe	*Assessment of Physicochemical Characteristics and Nutritional Potentials of Raw, Cooked, Sprouted Underutilized Pulses and Their Bioactive Extracts*	India	2019
16	Dr. Kwanhatai Thongpalad	*Evaluation of Safety and Quality Standards of Layer Farms for the Production of High-Quality Eggs*	Thailand	2019
17	Dr. Sujitta Raungrusmee	*Development and Characterization of Resistant Starch from Pathumthani 80 and Berry Rice and Evaluate to Form Low Glycemic Index and Gluten Free Noodles.*	Thailand	2019
18	Dr Su Aye Aye Hlaing	*Enriched Biomass Production and Encapsulation of Microalgae for Novel Food Production*	Myanmar	2020
19	Dr. Simmi Ranjan	*Designing and Evaluation of Functional Foods from Underutilized Legumes and Millets*	India	2020

20	Ms Thachajaree Mala	*Green Technology Based Extraction and Evaluation of Bromelain and Other Bioactive Peptides from Pineapple Industrial Waste for Their Value Addition*	Thailand	2021
21	Ms Chitrlada Booncharoen	*Analysis of Knowledge, Attitude and Perceptions Towards Adoption of Good Aquaculture Practices in Thailand*	Thailand	2021
(On-Going Students; PhD)				
22	Mr Ronnachai Yoddumnem	*Risk Analysis and Development of Food Safety Management Systems (FSMS) to Improve Production Standards for Small and Medium Enterprises (SMES) Producing Drinking Water*	Thailand	
23	Mr Suwan Panjanapongchai	*Screening of Bacillus Species from Food Processing Waste and Process Optimization by Utilization of Agro-industrial Waste as Substrate to Produce Biosurfactant*	Thailand	
24	Ms Noontarat Boonlao	*Formulation Optimization and Characterization of Protein-Polysaccharide Conjugate Based Encapsulation System to Enhance Stability, Digestibility and Bioaccessibility of Lutein*	Thailand	
25	Mr Chaichawin Chavapradit	*Development of Protein Hydrolysates and Peptides Nanoparticles in Conjugation with Carbohydrates from Agro-industrial Waste to Enhance Antimicrobial Properties*	Thailand	
26	Ms Khwanchol Kampan	*Stakeholders' Awareness, Attitudes and Perceptions Towards Blockchain Technology in Agri-Supply Chain Traceability Systems*	Thailand	
27.	Ms Sarina Pradhan Thapa	*Assessment of Knwoledge, Attitude And Practices (Kap) Towards Antimicrobial Resistance (Amr) Among The Pharmacists/Pharmancy Owners And Medical Practitioners In Kathmandu Valley, Nepal*	Nepalese	
28.	Ms. Paula Tae	*Isolation and Screening of Plastic Degrading Microorganisms and Evaluation of Recombinant AlkB Gene to Eschericia coli*	Thailand	
29.	Mr. Muhammad Umar	*Enhancing Bioaccesibility And Oral Bioavailability of Colostrum Proteins In Food And Beverages By Engineered/Nano Particulate-Based Delivery System*	Pakistan	

30.	Ms. Nanthira Tina Rodvong	*Farm to Fork Digitally Enhanced Traceability Systems for Small and Medium Enterprises: A Case Study of High - Valued Fruits and Vegetable*	Thailand	
31.	Ms Jarunee Intrasook	*Analysis of Consumers' Expectations and Perceptions and Development of Food Safety Standards Along with Regulatory Frameworks for Functional Beverages Containing Botanicals*	Thailand	
32.	Ms. Latchaporn Thamteerasathian	*Evaluation of Co-supplementation with Vitamin D and Synbiotics in Laying Hen Diet to Enhance Specific Vitamins and Antioxidant Properties of Eggs*	Thailand	

A.2 Master Students (As Main Supervisor- Completed at AIT during 2010-2022)

No.	Name	Thesis	Country	Year
1.	Ms Siriluk Wuttimongkoikul	Process Optimization of Ultrasonication Assisted Extraction of Bioactive Extracts from Bitter Gourd (*Momordica charantia* L.) Combined with Okra (*Abelmoschus esculentus* L.) and Evaluation of Their Antidiabetic Properties	Thailand	2022
2.	Ms Pattaraporn Somsamai	Extraction and Evaluation of Bioactive Extrudes from Immature and Mature Ivy Gourd (*Coccinia grandis*) Fruit	Thailand	2022
3.	Ms Menail Sajid	Isolation and Characterization of Lactic Acid Bacteria from Kashmiri Fermented Vegetable Pickle for Potential Folic Acid Production	Pakistan	2022
4.	Ms Anusha Karki	Ultrasonication Assisted Process for Crystal Size Reduction of Honey from Nepal and Evaluation of Their Bioactive Properties	Nepal	2022
5.	Ms Benjawan Kaewnet	Consumers' Perception, Attitude and Preference Towards Adoption of Plant-based Supoerfood Diets	Thailand	2022
6.	Ms Chanamate Tantimtad	Impact of COVID-19 on Food Loss and Food Waste at Retailers' Level: A Case Study of Durian Fruit in Greater Bangkok Area, Thailand	Thailand	2022
7.	Ms Modisa Khan	Effect of Interspecies Quorum Quenching on Horizontal Transfer of Antibiotic Resistance Genes and Evaluation of Antagonistic Activity of Probiotics	Pakistan	2021
8.	Mr. Ram P. Berbetta	Development of Cryo-dessicated Micronized Protein Conglomerates: Effect of Maltodextrin on Stability, Functionality and Digestibility	India	2021

9	Ms. Krisha Pant	*Antifungal Activity of Probiotics and their Metabolites and Elucidation of the Mechanism of Interaction*	Nepal	2021
10	Ms. Patchanee Pattharanukul	*Evaluation of Safety and Quality Standards of The Local Cricket Farms and Amplification the Quality of the Cricket with Lactic Acid Bacteria (Pediococcus acidilactici) Fermentation*	Thailand	2021
11	Mr. Susan Subedi	*Value chain analysis of goat sub-sector in terai region of Nepal*	Nepal	2021
12	Ms. Manita Adhikari	*Nano-laminated Edible Coating with Layer-by-Layer (LbL) Deposition of Biopolymers to Enhance the Shelf Life and In situ Effects on Strawberry*	Nepal	2020
13	Mr. Jirateep Chusri	*Development and Evaluation of e-LIPOSOME for controlled Delivery of Bioactive Compounds in Cosmetic Application*	Thailand	2020
14	Mr. Chokpipat Wonglamai	*Formulation optimization Preparation and Characterization of chitosan-peptide Nanoparticle from Poultry Feather*	Thailand	2020
15	Mr. Adulwit Piyarujira	*Evalution of Effects of Biofertilizers on Growth Yield of Lettuce and Morning Glory in Hydroponic System*	Thailand	2020
16	Ms. Anjelina Sundarsingh	*Biopolymeric encapsulation system to protect and controlled gastrointestinal passage of Lactobacillus acidophilus (TISTR 2365).*	India	2020
17	Ms. Tu Trinh Thi Nguyen	*Optimazation of Ligh Conditions to Improve Growth of Cordyceps Militaris and Development of Encapsulation System to Enhance Its Stability*	Vietnam	2020
18	Ms. Kazi Samia Pial	*Essential Oils and Chitosan-Based Namoemulsion as Biopreservation to Control Multi-Drug Resistance Foodborne Pathogens*	Bangladesh	2020
19	Mr. Gopi	*Biopolymeric-Based, Multilayered Hydrogel Beads for the Slow Release of Fertilizers*	India	2020
20	Mr. Jirateep Chusri	*Development and Evaluation of eLIPOSOME for controlled Delivery of Bioactive Compunds in Cosmetic Application*	Thailand	2020
21	Ms Riya Shrestha	*Genomic Analysis and Effect of Microbial Diversity on Vertical Aquaponic System*	Nepal	2019
22	Ms. Sabitri Siris Thapa	*Process Optimization of Xylitol Production Through Ultrasound-Assisted Alkaline Pretreatment and Enzymatic Hydrolysis Followed by Fermentation from Sugarcane Bagasse*	Nepal	2019
23	Ms Anuja Dahal	*Formulation, Optimization and Effects of Hydrocolloids on the Development of Corn and Proso Millet Based Gluten-Free Noodles*	Nepal	2019
24	Ms Laxmi Neupane	*Ultrasonic Assisted Extraction of Carotenoids from Banana Peels and Effect of Lights on their Degradation*	Nepal	2019
25	Ms Pariyarat Worasakwuttiphong	*Antibiogram Study and Identification of Antibiotic Resistance Gene Patterns in Food Pathogens and Evaluation of Antibacterial Effects of Probiotics*	Thailand	2019

26	Ms Ngamjai Boonrahong	*Factors Influencing the adoption of Marketing Outlets for Small and Medium Organic Farmer in Chiang Mai Province, Thailand*	Thailand	2019
27	Ms. Kamakshi Singh	*Evaluation of Food Safety Management Systems in Milk Processing Plant: A Case Study Ahmedabad in Gujarat, India*	India	2019
28	Ms Bhairavi Singh	*Assessment of Value Chain Development Strategies for Gree Tea: A Case Study of Darjeeling, India.*	India	2019
29	Mr. Saugat Prajapati	*Isolation and Characterization of Keratinolytic Bacteria From Chicken Farm Bed and Its Application in Production of Keratin Hydrolysates From Chicken Feather*	Nepal	2018
30	Miss Nuntarat Boonlao	*Formulation, Physicochemical Characterization of Astaxanthin Loaded Polysaccharide-Protein Based Emulsion and Evaluation of its Bioaccessibility*	Thailand	2018
31	Mr. Chaichawin Chavapradit	*Development of pH-Responsive and Heat Resistance Polysaccharide -Protein Based Hydrogel Beads for Controlled Release of Bioactive Compound*	Thailand	2018
32	Mr. Suwan Panjanapongchai	*Isolation, Molecular Identification and Microencapsulation of Microorganisms in Biofertilizer to Enhance Their Functionality*	Thailand	2018
33	Miss Anjali M P	*Optimization of Ultrasound Assisted Extraction (UAE) and Evaluation of Physiochemical and Bioactive Properties of Extracts and Resistant Starch from Black Glutinous Rice and its Bran*	India	2018
34	Miss Mishenki Rajapakse	*Development and Evaluation of Polysaccharide-Protein Based Encapsulation System to Enhance the Stability of Folic Acid in Food and Beverage*	Sri Lanka	2018
35	Miss Manimeldura Poshali Nirmani De Zoysa	*Development and Characterization of Cinnamon Oil Based Emulsion as Biopreservative in Raw and Pasteurized Milk*	Sri Lanka	2018
36	Mr. Sonam Dorji	*Value Chain Development and Feasibility Studies for Innovative Product Based on Large Cardamom (Amomum subulatom): A Case Study in Bhutan*	Bhutan	2018
37	Miss Arpapat Lapinee	*Ultrasound Assisted Extraction (UAE) of Phycocyanin from Microalgae to Enhance its Stability*	Thailand	2018
38	Miss Smriti Shrestha	*Optimization of Extraction of Astaxanthin from Hematococcus pulvaris by Ultrasonication Assisted Extraction and Enhance its Stability by Nanoencapsulation*	Nepal	2017
39	Miss Pratiksha Shrestha	*Extraction of Crystalline Nanocellulose from Banana Pseudostem and Its Utilization in Developing Drug Loaded Nanocomposite Film*	Nepal	2017

40	Miss Asha Kumari	*Synergestic Antibacterial Effects of Acacia nilotica Extracts and Lactobacillus acidophilus Cell-free Superatant Against Multi-drug Resistance (MDR) Bacteria*	India	2017
41	Miss Piraya Lueprasitsakul	*Extraction of Rice Bran Protein (RBP) and its Application in Developing Functional Ice Cream*	Thailand	2017
42	Miss Konkanok Thaisungnoen	*Evaluation of Biactive and Antimutagenic Properties of Different Types of Napier Grass Extract*	Thailand	2017
43	Ms Anita Lamichhane	*Isolation, Identification, Characterization and Application of Starter Culture of Probiotics from Naturally Fermented Taro and Black Soybean Based Product "Masura"*	Nepal	2017
44	Ms Sarisa Sangratana	*Analysis of Consumers' Intention and Perception Towards Functional Foods and Neutraceuticals in Bangkok Province, Thailand*	Thailand	2017
45	Mr Abiral Pant	*Assessment of Application of Probiotics Supplement and Its Impact on Livestock Production*	Nepal	2017
46	Ms Chanankan Khantong	*Analysis of Consumers' Intention and Behaviour Towards Organic Food Products in Chiang Mai, Thailand*	Thailand	2017
47	Ms Sagun Sharma Pandit	*Analysis of Challenges in Marketing Information Flow of Vegetable Farmers in Nepal*	Nepal	2017
48	Mr. Suphamid Sriwattanachai	*Synergistic Antifungal Effects of Essential Oils and Lactobacillus plantarum Cell-free Supernatant against Penicillium spp. and in situ Effects in Rice.*	Thailand	2016
49	Mr. Chhay Chanseyha	*Prevalence and Identification of Antibiotic Resistant Genes in Escherichia coli and Salmonella Isolates from Green Leaf Lettuce in Thailand and Cambodia"*	Cambodia	2016
50	Mr. Hendri	*Gum Arabic and Chitosan Based Edible Packaging to Enhance Shelf of Fresh Cut Dragon Fruit (Hylocereus undatus L.)*	Indonesia	2016
51	Miss Manisha Singh	*Assessment of Bioactive Compounds in Dammar Extracts and Exploration of Composite Film Based on Dammar*	Nepal	2016
52	Mr. Mirza Rajiv Azad	*Evaluation of Encapsulated Lactobacillus bulgaricus for their Viability in Feed Pellets and Simulated Gastrointestinal Conditions of Poultry*	Bangladesh	2016
53	Ms. Thazin Oo	*Qualitative Analysis of Tetracycline Residues and Evaluation of Antibiogram of Salmonella and Vibrio Isolates from Whiteleg Shrimp*	Myanmar	2016
54	Mrs. Atiqa Anwar	*Enhanced Functional Value of Banana Juice with Moringa Oleifera Leaf Extract and its Characterization*	Pakistan	2016
55	Mr. Agus Hadiarto	*Supply Chain Analysis and Market Efficiency of Manago (Mangifera Indica) in West Java Province of Indonesia*	Indonesia	2016
56	Miss Kittima Triratanasirichai	*Bioprocessing of Rice Bran to Isolate Peptide for its Value Addition*	Thailand	2015
57	Mr. Sajal Man Shrestha	*Isolation and Identification and Genetic Profiling of Starter Culture of "Juju Dhau" (Traditional Nepali Yogurt)*	Nepal	2015

58	Miss May Pwint Phyu	*Characterization and Encapsulation of Spirulina in Alginate – Soy Protein Isolate and Alginate – Hylon VII Based Beads in Application of Functional Bakery Products*	Myanmar	2015
59	Miss Manisha Anand	*Extraction and In Vitro Evaluation of Antidiabetic Efficacy of Bioactive Extracts from Okra (Abelmoschus esculentus) and their Encapsulation for Controlled Gastrointestinal Passage*	India	2015
60	Mr. Damodar Dhakal	*Extraction and characterization of collagen to develop bio-polymeric nanofibre from Chicken feet*	Nepal	2015
61	Miss Yi Yi Win	*Isolation and Identification of Caffeine Degrading from Chiangmai's Coffee Plantation Area in Thailand*	India	2015
62	Miss Mridula Thapa	*Optimization of the Extraction of Bioactive Compounds from Nettle Leaves and their Bioencapsulation for Controlled Gastrointestinal Release*	Nepal	2014
63	Miss Zhu Xiaoyun	*Optimized Extraction Method and Augmentation of SOD (Superoxide Dismutase) Activity in Black Soybean Functional Beverage*	China	2014
64	Mr. Shane Htet Ko	*Antibiotic Resistance of Faecal Indicator Bacteria of Drinking Water Sources at Ayeyarwaddy Delta Region of Myanmar*	Myanmar	2014
65	Miss Tin Marlar Thein	*Extraction of Bioactive from Thananakha (Naringi crenulate) and Their Application on Soap Making*	Myanmar	2014
66	Mr. Yusuf Muhammad Zein	*Biodiesel Production from Waste Palm Oil Catalyzed by Hierarchical ZSM-5 supported Calcium Oxide*	Indonesia	2014
67	Miss Wiwit Sri Werdi Pratiwi	*Production by Lintnerization-Autoclaving and Physicochemical Characterization of Resistant Starch III from Sago Palm (Metroxylon sagu rottb)*	Indonesia	2014
68	Ms. Kwanhatai Thongpalad	*Perceptions of Farmers on Biosecurity Practices in Pig Farms in Thailand*	Thailand	2014
69	Ms. Rashmi Supriya	*Fortification of alkaline water by encapsulated bilberry anthocyanin in biopolymeric beads and in vitro studies for targeted delivery in colon*	India	2013
70	Mr. Muhammad Bilal Sadiq	*Carboxymethylatation of Kappa Carrageenan and evaluation of physicochemical and antibacterial activities*	Pakistan	2013
71	Ms. Krittayawan Bhumiwat	*Enzymatic production of xylooligosaccharides from coconut husk and their prebiotic effects on growth of Lactobacillus plantarum*	Thailand	2013
72	Ms. Kewalee Sitthiya	*Functional properties and antimicrobial activities of banana (Musa Sapientum L) flower proteins*	Thailand	2013

73	Ms. Siriporn Chaemsanit	*Isolation of pathogens in eggs from farms and markets in Thailand and analysis of their resistance to commercial antibacterials and lactobacilli*	Thailand	2013
74	Mr. Chum Chantha	*Production, characterization and antimicrobial properties of nanofibers from coconut husk by fermentation with rumen microbes*	Cambodia	2013
75	Ms. Thuzar Mon	*Encapsulation of virgin coconut oil in blends of soy/rice protein, chitosan and gum arabic*	Myanmar	2013
76	Ms. Lawan Hiranrangsee	*Extraction of anthocyanins and lipid from pericarp and seed of Garcinia mangostana L. by ultrasound-assisted extraction (UAE).*	Thailand	2012
77	Ms. Shruti	*Screening of bioactive extracts from plant sources for modulation of digestive enzymes and lipoprotein metabolism.*	India	2012
78	Ms. Silvia Ayu Widayati	*Ultrasound-assisted extraction of protein from broiler chicken bone: Optimization process and product development.*	Indonesia	2012
79	Ms. Thiraphon Sumongkhon	*Application of ash from palm oil industry as adsorbent of food dyes.*	Thailand	2012
80	Ms. Alisha Tuladhar	*Augmentation of natural folate via fermentation with Lactococcus lactis in dairy and non-dairy products.*	Nepal	2012
81	Ms. Jiraporn Kaowmek	*Encapsulation of phytase enzyme in alginate-soy protein isolate based beads for monogastric animal feed formulation.*	Thailand	2012
82	Ms. Navarose Putmuang	*Autolysis and ultrasonic-assisted extraction of protein hydrolysates from white shrimp head (Penaeus vannamei) and application in food emulsion.*	Thailand	2012
83	Mr. Kumar Purnendu Singh	*Effects of hydrocolloids on physical properties and protein concentration of chickpea flour beverage.*	India	2012
84	Mr. Tezar Ramdhan	*Effects of lactic fermentation on total polyphenol content and antioxidant activity of ginger (Zingiber officinale Roscoe), Galangal (Alpinia galangal Linn) and Java Turmeric (Curcuma xanthoriza Roxb).*	Indonesia	2012
85	Ms. Kishore Krishna Kumaree	*Incorporation of isolated probiotic from fish gut in feed as functional additive for healthy and value added fish production.*	India	2012
86	Ms. Sujata Bhatia	*Thailand: Challenges and Readiness Towards and Asean Economic commity 2015 Plaform, Focusing on the Free Flow of Goods Segment: Case Study of The Rice Industry*	Thailand	2012

87	Ms. Waraporn Onputtha	*Feasibility study of Oil Palm Plantations for Biodiesel Production in Ubon Ratchathani Province, Thailand*	Thailand	2012
88	Ms. Apinya Khongsanan	*Rubber Supply Chain and Logistic Cost Analysis in the Northern Part of Thailand: A Case study of Chiang Khong District, Chiang Rai Province*	Thailand	2012
89	Ms. Nattaporn Kassomboon	*Comparison of Cost and Return Analysis of On-Season and Off-Season Longan Production in Lamphun Province*	Thailand	2012
90	Mr. Rachan Inta	*Effect of Different Chilling Conditions on Qualities of Chicken Meat".*	Thailand	2011
91	Mr. Jeilu Jemal	*Effect of Plyelectrolyte Based Microencapsulation on the Motility and Cryopreservation of Boran Semen".*	Ethiopia	2011
92	Mr. Jullachak Chunluan	*Effect of Saturated Steam Oven Cooking on Properties of Ready-To-Eat Chicken Breast Meat".*	Ethiopia	2011
93	Ms. Rinnawat Chaijalearn	*"Effects of Soxhlet Extraction and Canning Method on Physical Properties and Charantin Content of Bitter Melon (Momordica characntia) Drink".*	Thailand	2010
94	Ms. Butsadee Iamareerat	*Reinforced Cassava Starch Based Edible Film with Essential Oil and Clay Nanoparticles*	Thailand	2010
95	Ms. Supusanee Dulyakasem	*Soy Protein Isolate-Essential Oils Based Edible Film for Food Packaging*	Thailand	2010
96	Ms. Nongnard Jaroensri	*Protein Concentrates-Polysaccharides Based Microcapsules for Controlled Release of Folic Acid*	Thailand	2010
97	Ms. Rungnapa Kallapruek	*Effects of Chitosan on Enchancing the shelf life of Fresh Rice Noodle*	Thailand	2010
98	Ms. Sirorat Jaisanti	*Extraction, Characterization and Application of Phenolics from Cinnamon Barks and Banana Peels*	Thailand	2010
99	Ms. Chotika Ounseng	*Reduction of Oil Content in Potato Crisps with Sugar Pre-Treatment*	Thailand	2010
100	Mr. Ali Akbar	*Prevalence of Salmonella and Escherichia Coli in the Poultry Meat of Thailand and the Study of their Antibiogram*	Pakistan	2010

A3. Capstone Project Supervisor for 30 students of Undergraduate studies in Bio Systems Engineering

A4. Mentors for more than 100 Interns (visiting from Overseas Institutions and Industries including USA, Australia, France, Japan, Thailand, Vietnam, Indonesia, India, Nepal, Sri Lanka, Pakistan, Germany, UK, China etc.)

A5. External Examiner for Doctoral Dissertation from Various Universities

Served as External Examiner to evaluate Dissertation/ Thesis of more than 25 Doctoral students from Various Universities including from Australia, Austria, India, Nepal, Austria, China, France etc.

A.6 Reviewer for Grants/Journals

1. Have been serving as an **External Reviewer** for various Competitive Research Grants from different donor agencies (3-5 grants/ year)
2. **External Reviewer**; ***Research Grant Committee (RGC), Hong Kong,*** (Every year at least three Since 2007)
3. **Reviewer**; Develop roadmap for Biotechnology and Nanotechnology research in New Zealand, Ministry of Research, Science and Technology (MoRST), New Zealand (2007)
4. **Reviewer** of international scientific **peer reviewed journals** (Selected):
   (Reviewing about 25-30 Manuscripts per year for the peer-reviewed high impact factor) **Journals.**
   Food Hydrocolloids, Carbohydrate Polymers, Food Bioscience, Food Control, International Journal of Biological Macromolecules, International Journal of Pharmaceutics , Journal of Biomaterials Science, Journal of Food Science, Foods, Journal of Microencapsulation, International Dairy Journal of Colloids and Surfaces B: Biointerfaces, Journal of Membrane Science, Journal of the Science of Food and Agriculture, Nutrients, Biochemical Engineering Journal, Biomedical Research, Food Chemistry, Food Biotechnology, Process Biochemistry, Journal of Ethnic Foods, Journal of Food Microbiology, Annals of Microbiology, Journal of Biological Macromolecules, Food Research International, International Food Research, Journal of Food Safety and Food Quality