

M.O.P. Vaishnav College for Women
(Autonomous)
No. 20, IV Lane, Nungambakkam High Road
Chennai-600 034



M.O.P. Vaishnav College for Women (Autonomous)

Department of Food Science

M.Sc Food Technology and Management

**Report on
NEW PRODUCT DEVELOPMENT**

2016-2021

DEPARTMENT OF FOOD SCIENCE
M.Sc. (Food Technology and Management)
NEW PRODUCT DEVELOPMENT (NPD)

A Report – 2016-2021

New product development (NPD) is essential for business success and growth. It is the driving force of companies and vital for their organic growth. Insatiable consumer appetite, strong worldwide competition, changing consumer behaviour and technology, force companies to invest in new products to succeed or for their survival. New product development is a necessary activity for food companies to survive in today's turbulent markets.

However, the challenges involved in NPD of food are rapidly increasing due to consumer demand for organic and healthy diets, in particular, more nutritious low-calorie food, and preference for customised and personalised food products; improving food safety, shelf life, and reducing wastage, to demands for increasingly sophisticated foods having special characteristics in terms of nutritional value, palatability, and convenience.

The Department of Food Science actively engages its students in "learning by doing" and provides its students at the M.Sc. FTM hands on experience by providing opportunities in designing and developing new products from initial concept to full production, and evaluating consumer response to the product. The students undertake variety of major and minor product development projects during the course. This enables students to integrate theory and practice, develop independent critical thinking skills, learning lab techniques, analyze data and in developing skills in the interpretation of results.

Over the years, the students have developed a number of new products during their course of study which have helped them later in creating and enhancing products that fill a niche in the market or allow their clients to remain competitive.

Some of these projects in New Product Development are showcased at various national and international platforms.

ACADEMIC YEAR: 2020-21

S. No.	Register Number	Name of the Student	Title (Major/ Minor Project)
1	1913712055003	Aishwarya L A	Incorporation of Probiotics in Millet based Granola bars: Nutritive analysis and Viability of cells
2	1913712055005	AnanthaLakshmi .P	Formulation and Evaluation of Fibre Fortified Paneer
3	1913712055006	Anjali S Kumar	Formulation and Evaluation of Spirulina (<i>Arthrospira platensis</i>) incorporated millet based weaning food
4	1913712055010	Jagajjanani G	Formulation and Evaluation of sweet corn milk (<i>Zea mays</i>) based mayonnaise
5	1913712055012	Madumitha M S	Development of Blended and Flavored Plant-based milk beverage
6	1913712055019	Poorani E K	Development and characterization of composite edible films incorporated with clove essential oil and evaluating its effect on raw chicken meat

S. No.	Register Number	Name of the Student	Title (Major/ Minor Project)
7	1913712055022	Rajeshwari Priya S	Formulation and evaluation of instant soup mix enriched with microgreens
8	1913712055024	Shanmuga Priya M	Formulation and development of multigrain centre-filled cookies and millet crisps as fillings
9	1913712055025	Sheresha S	Development of Almond-Soy milk blended Vegan Paneer Enriched with Calcium
10	1913712055027	Suvitha Rajam V	Development and Quality Evaluation of Gluten Free Millet based Crackers Incorporated with Tefl (<i>Eragrostis Tef</i>) Flour
11	1913712055030	Snehamol Saji	Development and standardization of Jackfruit seed flour pasta.
12	1913712055001	Abinaya K	Acceptability of biscuits incorporated with red banana powder and its nutritive value
13	1913712055003	Aishwarya L A	Study and Formulation of Millet based Weaning food with Banana and Guava powder
14	1913712055005	Anantha Lakshmi .P	Formulation of spirulina based fibre enriched tortillas, soy-based rehydratable drink
15	1913712055006	Anjali S Kumar	Formulation of re hydratable space drinks Formulation of Instant tortillas
16	1913712055010	Jagajjanani G	Formulation of Thepla, packaging and processing techniques. Formulation of vegetable gravy, packaging and processing techniques. Formulation of chocolate muffin, packaging and processing techniques. Formulation of guava jelly, packaging and processing techniques
17	1913712055011	Madhumitha S	Formulation Vegan protein cocktail, Food- Fruity salmon pasta salad with lime and broccoli dressing
18	1913712055017	Pavithra K	Development and standardization of multi millet dosa mix, instant millet chutney & millet podi
19	1913712055019	Poorani E K	Space food development (ASTRO research society)
20	1913712055025	Sheresha S	Development of cookies fortified with moringa leaves powder
21	1913712055026	Sreedheepana B	Formulation of irradiated chicken stir fry with mashed potatoes and duckweed , rehydratable vegan dry fruit milkshake
22	1913712055028	Ramya R	Retention of flavour at varying levels of orange peel incorporated in dates jam
23	1913712055030	Snehamol Saji	Development and Standardisation of jackfruit seed flour Idli podi.

ACADEMIC YEAR: 2019-20

S. No	Register Number	Name of the Student	Title (Major/ Minor Project)
1	1813712055001	Adlin Nisha G	Optimization and characterization of mayonnaise using cellulose from red banana peel as fat replacer
2	1813712055002	Alisha Rachel Abraham	Optimization of Palmyra sprout(<i>Borassus flabellifer</i>) powder as a thickening agent in soup mixes
3	1813712055003	Anagha D	Development and Standardization of Cycas seed flour Pasta
4	1813712055005	AsmathMubeena S	Optimization and functionality of inulin added minor millet-based gluten free noodles
5	1813712055006	Jemima Freeda Joyce S	Optimization of Cottonseed Milk extraction method and its comparison with Cow's milk
6	1813712055007	Kamalish M	Nutritive and sensory analysis of Wheat chips incorporated with lotus root
7	1813712055010	Neha P J	Determination of oil absorption in fried taro chips as influenced by aloe vera coating
8	1813712055011	Nevedha S	Incorporation of altered particle size millet flour in ice cream formulation and analysis of its physico-chemical properties.
9	1813712055012	Nevedhitha K G	Effect of pre-treatments on the nutrient content of browntop millet and development of cookies
10	1813712055013	Pradeepa S	Formulation and Quality Evaluation of Hibiscus (<i>Hibiscus rosa sinensis</i>) incorporated Plum Jams (<i>Prunus domestica</i>)
11	1813712055014	Rajalakshmi P	Effect of Inclusion of Dry Kale leaf Powder as Natural Preservative in Pickles
12	1813712055015	Rakshitha D	Preservation of paneer by combining spice (<i>Syzygiumaromaticum</i> and <i>Piper longum</i> linn.) and brine treatment.
13	1813712055016	Revathy S	Optimization and functionality of durum wheat vegan pasta incorporated with pearl millet and finger millet
14	1813712055018	Sangeetha V	Formulation and evaluation of millet-based vermicelli with incorporation of cauliflower leaf
15	1813712055019	Saumya S	Formulation and Evaluation of Cookies Incorporated with Roasted Chicory Powder and Inulin
16	1813712055020	Sepilyaa P	Utilization of Tamarind Seed Polysaccharide as a Gelling Agent in the Preparation of Ready- To- Eat Bilimbi Fruit Jelly

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17	1813712055021	Shruthi V	Formulation and Analysis of fermented soda from Averrhoa carambola with ginger bug as a fermenting agent
18	1813712055022	Srimathi Krishnan	Formulation of breakfast cereal incorporated with corn silk and pea pod powder
19	1813712055023	Swetha V	Development of Fruit Jam from Indian Jujube <i>Zizyphus mauritiana</i> and Analyzing its Quality Parameters
20	1813712055024	Taniya Kapoor	Formulation and Evaluation of Functional, Nutritional and Sensory properties of Inulin incorporated RTE Multi-grain Breakfast cereal
21	1813712055025	Umayal Nandhini S	Development, standardization and analysis of pizza base made using pearl millet, little millet and foxtail millet
22	1813712055026	Veena P	Utilization of Fructo-oligosaccharides as low - calorie sweetener in the formulation of bean to bar dark chocolate
23	1813712055027	Agadha S	Development of breakfast cereals using banana blossom bracts and determination of its nutritive value and acceptability
24	1813712055001	Adlin Nisha G	Formulation and evaluation of red banana peel cookies
25	1813712055002	Alisha Rachel Abraham	Nutritional evaluation of the rind of <i>Myristica fragrans</i> (Nutmeg fruit) and associative and optimization studies of different gelling agents to produce Nutmeg fruit jelly Assessment of Quality parameters of a Britannia products (biscuits) and microbiological investigation of the equipments in production
26	1813712055003	Anagha D	Development and Standardisation of Coconut Milk Paneer Fortified with Soymilk
27	1813712055004	Anjana S Nair	Development standardisation and quality analysis of coconut flour incorporated energy bar
28	1813712055005	Asmath Mubeena S	Assessment and evaluation of dry dates powder cookies
29	1813712055006	Jemima Freeda Joyce S	Comparative study on the sensorial properties of fermented and non-fermented baked spinach cheese crackers and its nutritional evaluation
30	1813712055007	Kamalish M	Qualitative and quantitative analysis of Laddu incorporated with Indian Borage
31	1813712055008	Lobo Vasumathi Pirathapan Sophia	Effect of Hydrocolloids in deep fat fried poori on oil uptake during frying

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32	1813712055010	Neha P J	Development and study of shelf life of flavoured whey beverages from production of paneer.
33	1813712055011	Nevedha S	Raisin syrup as sugar substitute and natural flavour agent in ice cream manufacture - A study on the physical, chemical and sensory attributes of the resulting ice cream
34	1813712055012	Nevedhitha K G	Preparation and sensory evaluation of shrikhand by blending papaya and banana pulp
35	1813712055013	Pradeepa S	Formulation and evaluation of dried hibiscus incorporated marshmallows
36	1813712055014	Rajalakshmi P	1. Equivalence test for new products by Rapid microbiology and Conventional method. 2. A study on Difference between Rapid microbiology and Conventional method of four Different Juices (10.5%) - CSD
37	1813712055015	Rakshitha D	Evaluation of shelf life of sterilised flavoured milk for its selected organoleptic, physical, chemical and microbiological parameters against its declared shelf life and Role of Ghee In Health And Nutrition - A Brief Review.
38	1813712055016	Revathy S	Optimization and functionality of durum wheat vegan pasta incorporated with pearl millet and finger millet
39	1813712055017	Roshni B	Effectiveness of roasted sesame oilseeds in the Thermo-oxidative stability of other edible oils.
40	1813712055018	Sangeetha V	Formulation and evaluation of millet-based vermicelli with incorporation of cauliflower leaf
41	1813712055019	Saumya S	Development of biodegradable cups using banana peel
42	1813712055020	Sepilyaa P	Activity of Saccharomyces boulardii in Dragon fruit Wine
43	1813712055021	Shruthi V	Development of coating for candy
44	1813712055022	Srimathi Krishnan	Development of dairy free paneer from peanut milk and analysing it's sensorial and nutritional parameters.
45	1813712055023	Swetha V	Study on Incorporation of "Murrayakoengii" powder in Atta Noodles
46	1813712055024	Taniya Kapoor	Effect of incorporated Omega-3 rich Hemp seeds on Physical, Chemical and Sensory properties of Icecream.
47	1813712055025	Umayal Nandhini S	Stabilization of uncooked Indian roti under frozen condition

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48	1813712055026	Veena P	Development, proximate analysis and sensory evaluation of foxtail ready to drink fermented beverage
49	1813712055027	Agadha S	Ageing of different flavouring profiles

ACADEMIC YEAR: 2018-19

S. No.	Register Number	Name of the Student	Title (Major/ Minor Project)
1	1713712055001	Aarthy P	A study on efficacy of pineapple fruit byproduct extract as a bioactive material in edible coating
2	1713712055002	Aishwarya Chandran S	Formulation of Health Mix using Jackfruit seed flour and Evaluation of Functional, Physico-chemical and Organoleptic properties.
3	1713712055003	Akshaya R	Efficacy of hexanal based formulation on the post-harvest shelf-life of amla (<i>Phyllanthus emblica</i>)
4	1713712055004	Amruthaa J R	Comparative study on the quality attributes of lettuce (<i>Lactuca sativa</i>) and tomato (<i>Solanum lycopersicum</i>) in response to the growing conduction (soil and hydroponics)
5	1713712055005	Dhanapriya.T.S	Stability of Vitamin E- enriched honey incorporated in papaya flavored yogurts
6	1713712055006	Divya J S	Development and Characterization of cookies incorporated with dehydrated Piper betel leaves powder
7	1713712055008	M. Jayalakshmi	Nutrient Analysis of coconut embryo (<i>Cocos nucifera</i>) and development of coconut embryo powder for partial replacement in dairy whitener
8	1713712055009	Jayashree k	Formulation and evaluation of south Indian traditional breakfast idly from underutilized millets
9	1713712055010	M. Krishnapriya	Comparative study on quality analysis of designed edible spoons.
10	1713712055011	Mahalakshmi. S	Utilization of gums as partial fat replacers in muffins
11	1713712055012	N. Nagabhavani	Development of Starch Based Edible Films from <i>Borassusflabellifer</i> Sprout Starch Incorporated with Basil Essential oil
12	1713712055013	Namrata S	Effect of germination on phytochemical, antioxidant and anti-nutritional properties of quinoa (<i>Chenopodium quinoa</i>) seeds
13	1713712055014	R. Nithya	A study on the properties of betalain as a natural colourant and its food application
14	1713712055015	Pooja T T	Study on optimization of artificial sweetener blends in the formulation of jamun seed powder and chia seed flour incorporated sports drink

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15	1713712055016	V Rajeswari	Study on the effect of Soy and Chick pea as egg replacers on the quality parameters of mayonnaise, cupcakes, Doughnuts
16	1713712055017	P Rashmika	In vitro study on Antibacterial Activity of <i>Lawsoniainermis</i> (henna) leaves and the Development and Analysis of Products using <i>Lawsoniainermis</i> as a preservative
17	1713712055018	A Rathipriya	Formulation and analysis of Ready to Reconstitute whey-based berry beverage
18	1713712055019	Reshma A	Application of Aloe vera as coating to produce low fat French fries and potato chips with commonly used oils for cooking
19	1713712055020	B Reshma	Effect of germination process on the proximate composition, physical properties and phytochemical properties of selected pulses and millets
20	1713712055021	G Rupika	Formulation of muffins using wheat flour and fox nut powder with pumpkin puree as fat replacer
21	1713712055022	R Sanjana	Formulation And Quality Evaluation of Amla Flaxseeds Enriched Cookies
22	1713712055023	U Sneha	Characterization and isolation of polysaccharide from tamarind seed powder and its utilization as a natural emulsifier in food product
23	1713712055024	M Surrabi	Comparison of physico-chemical and volatile composition of wine formulated from Basmati and Jasmine rice
24	1713712055025	Swetha S	Development of gluten free noodles using quinoa & rice flour and incorporating chickpea flour as an egg substitute
25	1713712055026	Thirrishu	Development and quality analysis of pineapple flavoured paneer

ACADEMIC YEAR: 2017-18

S.No.	Register Number	Name of the Student	Title (Major/Minor Project)
1	1619101	Aaradhana.A	A comparative study of edible films made using unmodified and modified corn starch incorporated with banana leaf extract and clove essential oil as an antimicrobial agent
2	1619102	Aarthy K	Development and evaluation of quality characteristics of health mix using flax seed
3	1619103	Anita Benny	Formulation and comparative study of marigold wine with grape wine
4	1619104	Aparna N V	Effect of roasting on selected nutrient profile and functional properties of chia seeds (<i>Salvia hispanica</i>) and optimization of chia seed powder based instant soup mix
5	1619106	Dhanalakshmi A	Evaluation of elephant yam flour (<i>Amorphophallus paeoniifolius</i>) as a thickener in soups

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6	1619107	Hema C	Formulation and evaluation of sweet (pudding) using cocoa and chicory powder variations
7	1619110	Karthika S	Optimization of aloe vera gel as a dough enhancer in pizza base
8	1619111	Lavanya S	Development of brownie incorporating kodo and barnyard millet
9	1619112	Mimalini J	A comparative study of the anti-microbial efficacy of selected essential of selected essential oils on certain food products
10	1619114	Nivedha V	Comparative study of microgreens with mature greens incorporated ready-to-eat chutney powders
11	1619115	Pooja Mohan	Development of a Zien based active packaging by the incorporation of plant essential oils
12	1619117	Salma Sayeed	Comparative analysis of buns formulated using Tangzhong method v/s emulsifier
13	1619118	Sangeetha.A C	Formulation of eggless mayonnaise with okra mucilage as an emulsifier
14	1619121	Shruthi K	Development and analysis of nutrient dense snack products using <i>cissus quadrangularis</i>
15	1619122	Vasanthi R	Effect of processing on selected nutrient profile and functional properties of basil seed (<i>Ocimumbasilicum</i>)
16	1619124	Yuvasri S G	Development and evaluation of <i>Cissus quadrangularis</i> based ready to eat mix

ACADEMIC YEAR: 2016-17

S. No.	Register Number	Name of the Student	Topic (Major/Minor Project)
1	1519101	Aashika	Formulation of nutri-composite flour, development and evaluation of Di-colored flat noodles with seasoning mix
2	1519102	Anargha V	Development of natural preservative for mayonnaise
3	1519104	Anusha R	Development and evaluation of crackers made using coconut flour and foxtail millet flour.
4	1519106	Divya R	Formulation and quality assessment of tortilla chips using Leaf powder(<i>Moringa oleifera</i>) and Seed flour(Jackfruit)
5	1519107	Haripriya M	Effectiveness of mushroom powder incorporation to increase the vitamin D content in paneer
6	1519108	Janaki	The effect of onion skin powder on the quality and stability of eggless mayonnaise

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7	1519109	Janani D	Formulation and evaluation of biscuits incorporated with carrot and beetroot powder
8	1519110	Kavitha N	Development of malted multi-millet flakes and its quality assessment
9	1519111	Keerthiga M	Formulation and evaluation of nutrient rich gluten-free composite flour and development of product from the formulated flour.
10	1519113	Mahalaxmi R	Formulation of apple based RTS beverage using aqueous cilantro extract and assessing its nutritional, physico-chemical and microbial properties
11	1519115	Meena B	Development and standardization of pearl millet biscuits with added pea pod powder
12	1519116	Nisha S	Development and sensory acceptability of banana peel flour and balloon vine incorporated noodles.
13	1519117	Nivetha	Formulation and analysis of sorghum- tuber cookies (Cassava, sweet potato and taro)
14	1519118	Rajshri V S	Effect of processing on nutrient composition and nutraceutical properties of garden cress seeds and optimization of garden cress based recipes
15	1519119	Roshini Badrinath	Formulation of Omega-3 rich baked cereal bar and evaluation of its nutritional and functional properties
16	1519121	Sandhya	Effect of pre- treatments on the selected nutrients and functional properties of Quinoa flour and optimization of gluten free Quinoa cookies
17	1519122	Shobhana.E	Isolation of halophilic bacteria and production of pigments as food colorants
18	1519123	Sneha A	Development of amaranth grain based instant <i>dosa</i> mix and its quality characteristics
19	1519124	Shruthy P N	Formulation and storage studies of snack bar using Njavara (<i>Oryza sativa</i> L.)
20	1519126	Sumithra	Development and quality evaluation of herbal RTS beverage with Haritaki powder

Jain
(Dr. Smiti Jain)
Head- M.Sc FTM

J.P.
Signature of Principal

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