

Addis Ababa University
Addis Ababa Institute of Technology
School of Chemical and Bio Engineering
List of Current M.Sc. Thesis and PhD Dissertations

Approved Thesis Titles and Advisors for 2016/17 A.Y

Process Engineering

	Name	Proposal title	Advisors
1	Abel Aklilu	Preparation of Solid Acid Catalyst from Rice Husk and Investigation of its Catalytic Performance in Esterification	Prof. Belay W.
2	Aklilu Gebrehawaria	Extraction of Azadirachtin from Neem Seed for Bio-Pesticide Purpose	Mr. Teshome W.
3	Azeb Tibebu	Production and Characterization of Antioxidant from Avocado Seed	Dr. Anuradha J.
4	Bethlehem Mekasha	Characterization and Pelletization of Sawdust Mixed with Sewage Sludge as Alternative Energy Source for Clinker Production	Prof. Belay W.
5	Betework Worku	Formulation of Shoe Polish from Wax and Used Water Sachets	Prof. Belay W.
6	Binyam Beza	Characterization and Clarification of Molasses from Different Sources to Produce Bakery Yeast	Prof. Eduardo O.
7	Birhan Getachew	Production and Optimization of Iron Sulphate from Local Iron Ore	Dr. Abubeker Y.
8	Dereje Emishaw	Extraction, Optimization and Characterization of Essential Oil from Vetiver (Vetiveria Zizanioides) Grassroot by Steam Distillation for Perfume Application	Dr. Zebene K.
9	Etefa Gurmesa	Investigation of Bitter Leaf (Vernonia Amygdalina) Extract as a Potential Substitute for Imported Hops	Mr. Teshome W.
10	Gadissa Mosisa	Production of Bio-Plastic from Corn Starch and Sugarcane Bagasse	Prof. Belay W.

11	Gebeyaw Engida	Wheat Straw Based Paper and Pulp Production	Dr. Zebene K.
12	Gebremedhn Tekeste	Synthesis and Characterization of Sulphonated Carbon Catalyst for Epoxidation of Vernonia Oil	Dr. Beteley T.
13	Girma Biratu	Extraction of Natural Dye from Local Plants	Mr. Teshome W.
14	Girma Daba	Production of Citric acid by Candida using Sugarcane Molasses as Substrate	Dr. Anuradha J.
15	Hailegebriel Gemechu	Production and Evaluation of Particleboard using Sugarcane Bagasse	Dr. Abubeker Y.
16	Kefyalew H/Mariam	Synthesis and Characterization of Sulphonated Carbon Catalyst for Hydrolysis of Cellulose	Dr. Beteley T.
17	Kiros Fisseha	Performance of Acid Activated Bentonite Clay for Congo Red Dye Removal from Aqueous Solution	Dr. Beteley T.
18	Leena Shemsu	Activation of Raw Bentonite (Afar Region) using H ₂ SO ₄ for Rapeseed and Niger Seed Oil Bleaching	Dr. Beteley T.
19	Meroda Tesfaye	Optimization of Extraction Process Parameters and Characterization of Gin flavor from Juniper Berries	Dr. Shimelis A.
20	Nigsty Gebreyohannes	Characterization and Optimization of Biodiesel from Cotton Seed Oil using CaO with Ethanol	Prof. Belay W.
21	Samson Addisu	Product Development of Ethanol from Crude Glycerol Obtained from Transesterification Process using E.Coli	Prof. Eduardo O.
22	Sewunet Ababayehu	Synthesis and Characterization of Bamboo Supported Nano Zero Valent Iron for the Removal of Chromium	Dr. Anuradha J.
23	Shimeles Mekonnen	Extraction and Evaluation of Oil from Black Cumin Seed using Hexane and Ethanol Solvent	Mr. Teshome W.
24	Tamirat Endale	Extraction and Characterization of Antioxidants from Ethiopian Wine making Byproduct (Grape Pomace)	Mr. Adamu Z.
25	Temechachew Tigabu	Production and Characterization of Silica Gel for Textile Wastewater Treatment (Adsorption of Methylene Blue by Silica Gel)	Dr. Zebene K.
26	Teshale Tadesse	Extraction, Characterization and Evaluation of Reinforcing Nanocellulose in Polyvinyl Alcohol (PVA)	Prof. Belay W.
27	Tewodros Abebe	Investigation of Optimum Condition and Characterization Essential Oil Extract from Artemisia Absinthium (Ariti) for Production of Body Lotion	Dr. Abubeker Y.
28	Tsgehiwet Gebremichal	Synthesis of Bioethanol from Duckweed (Lemna Minor)	Mr. Teshome W.

29	Yared Abate	Extraction and Optimization Oil from Sesame Seed using Cold Press and Solvent	Dr. Berhanu A.
30	Zelalem Belay	Extraction of Essential Oils from Ocimum Basilicum using Steam Distillation	Prof. Belay W.
31	Zinabu Tassew	Production and Characterization of Oil from Ethiopian <i>Jatropha Curcas</i> Seeds using Solvent Extraction Method	Dr. Abubeker Y.

Environmental Engineering

	Name	Proposal title	Advisors
1	Alemwork Ftaneges	Chrome Recovery and Solid Waste Management of Sheba Leather Industry PLC	Dr. Solomon K.
2	Ashenafi Berhanu	Removal of Direct Black 19 Dye from Aqueous Solution using Chemically Modified Peanut Shell Adsorbent	Mr. Teshome W.
3	Belete Derib	Conditioning and Characterization of Radioactive Waste to Predisposal Level: A Case Study of Addis Ababa Radwaste Management	Dr. Abubeker Y.
4	Beza Tefera	Co-Digestion of Slaughterhouse Waste and Sawdust for Anaerobic Biogas Production	Mr. Teshome W.
5	Endakimaw Sewalem	Study of Domestic Solid Waste Management Options for Debre Markose Town	Dr. Berhanu A.
6	Firomsa Teshale	Removal of Hexavalent Chromium from Tannery Industry Wastewater using Modified Fish Scales as Adsorbent	Dr. Kartikeyan
7	Gidey Kiros	Biogas Production by Anaerobic Co-Digestion of Food Waste and Goat Manure	Mr. Teshome W.
8	Hanan Endris	Production of Bioplastic (PLA) from Corn Starch and Optimization of Polymerization Factors	Dr. Abubeker Y.
9	Hiwot Fekadu	Depolymerization of Flexible Polyurethane Foam Waste using “Split-Phase Glycolysis” to produce Polyol	Dr. Beteley T.
10	Hiwot Getahun	Chromium Recovery and Extraction of Collagen Hydrolysate from Chrome Shaving	Dr. Kartikeyan
11	Ketema Demeke	Using Fentos Reaction to Remove Dye from Textile Industry Effluent	Dr. Zebene K.
12	Kide Tadesse	Utilization of Onion Skin Wastes as Adsorbent for the Removal of Toxic Heavy Metals (Lead and Cadmium) Ions from Wastewater	Mr. Teshome W.
13	Kidist Wondimu	Application of Hydro-Metallurgy to Recover a Precious Metal (Gold) from a Wasted Printed Circuit Broad (WPCD): Case Study of Ministry of Information,	Dr. Berhanu A.

		Communication and Technology (MICT)	
14	Mahlet Kebede	Evaluating the Efficiency of Aluminum Sulfate, Ferric Chloride and Soil Coagulants for the Recovery of Water from Dairy Wastewater	Dr. Zebene K.
15	Mehari Abraha	Deinking of Paper by using Natural Surfactant and Optimization of Ink Flotation Process in Waste Paper Recycling	Dr. Zebene K.
16	Neguse Edeo	Removal Efficiency of Pesticide (Malathion) from Wastewater by Electro-Coagulation using Aluminum Electrodes	Dr. Solomon K.
17	Seada Mohammed	Investigation of Biomass Gasification as an Option to Solid Waste Management and Sustainable Energy Generation using Process Simulation	Dr. Abubeker Y.
18	Sishu Hailemariam	Characterization and Adsorption Performance Evaluation of Thermally Activated Local Bentonite for Removal of Zinc from Aqueous Solution	Dr. Beteley T.
19	Temesgen Wolde	Flouride Removal by Adsorption using Modified Spent Diatomaceous Earth	Dr. Zebene K.
20	Tigist Zegeye	Optimization and Upgrading of Biogas Production from Brewery Waste for Boiler	Prof. Belay W.

Food Engineering

	Name	Proposal title	Advisors
1	Abiyot Negu	Development and Evaluation of Wheat Based Cookies Supplemented with Fenugreek Seed Powder and Oats Flour	Mr. Adamu Z.
2	Addisu Alemayehu	Shelf-Life Prediction and Quality Characterization of Some Edible Oils using Accelerated Shelf-Life Testing Method	Dr. Shimelis A.
3	Fasika Asres	Development of Value Added Products from Carissa Spinorum	Dr. Shimelis A.
4	Haylemikael Alemayehu	Product Development and Quality Characterization of Pulse-Based Extruded Ready to Eat Snacks	Dr. Shimelis A.
5	Kenbon Beyene	Characterization of Some Selected Avocado (Persea Americana) Cultivars Grown in Ethiopia and Optimization of its Oil Extraction Conditions	Dr. Shimelis A.
6	Mebt Kibret	De Colorization of Cane Sugar Juice by using Activate Carbon made from Cane Bagasse	Dr. Beteley T.

7	Moges Yilma	Product Development and Quality Evaluation of Cowpea Based Value Added Product	Dr. Shimelis A.
8	Semira Redwan	Development and Quality Evaluation of Biscuits from Composite Flour of Wheat, Cassava and Soybean	Mr. Adamu Z.
9	Sintayehu Matewos	Development of Cereal Based Complementary Food	Dr. Shimelis A.
10	Tesfaye Zeru	Optimization and Characterization of Casimiroa Edulis (White Sapote) Fruit Juice Production	Mr. Adamu Z.
11	Tsegaye Hailu	Determination of Optimum Maturity Indicators and Storage Life for Selected Avocado Cultivars Grown in Ethiopia	Dr. Shimelis A.

Biochemical Engineering

	Name	Proposal title	Advisors
1	Biru Hunde	Investigation of Cane Juice Deteriorators and Controlling Mechanisms at Milling Plant	Dr. Abubeker Y.
2	Dagem Zekaryas	Optimizing the Growth of Azospirillum Bacteria as Bio-Organic Fertilizer	Prof. Eduardo O.
3	Endriss Ali	Utilization of Duckweed (Lemna Minor) as a Carbon Source for Production of Lactic Acid	Prof. Eduardo O.
4	Fantahun Abeje	Extraction and Optimization of Phytase Enzyme from Microorganism Isolated from Poultry Feces and Cow Dung	Dr. Solomon K.
5	Fatuma Abiyu	Extraction of Lectin from Banana for Detection of Glycoconjugates	Dr. Shimelis A.
6	Hana Asrat	Evaluation and Selection of Culture Media to Produce Bakery Yeast from Ethiopia Resources	Dr. Shanmugavali
7	Kuma Nacho	Syrup Clarification using Flotation System in Wonji Ethiopia Sugar Factory	Mr. Adamu Z.
8	Lidya Damtew	Biobased Flocculent from Moringa Seed and Leaf Extract for Sugarcane Juice Clarification	Dr. Abubeker Y.
9	Redae Nuguse	Identification and Isolation of Suitable Lactic Acid Bacterial Strain for Minimizing Fermentation Time of Kocho	Mr. Adamu Z.
10	Tewodros Abebe	Extraction and Optimization of Natural Protein (Keratin) from Waste Chicken Feather	Dr. Kartikeyan
11	Yeshi Bekele	Optimizing Traditional <i>Tej</i> (Mead) by <i>Saccharomyces Cerevisiae</i> Yeast	Dr. Solomon K.

Current PhD Dissertations at SCBE

No.	Name	Dissertation Title	Advisor/s
1	Belay Teffera	Life Cycle Inventory Modeling of the Ethiopian Electricity System and Its Application in Environmental Product Declaration	Dr. Berhanu Assefa Dr. Getachew Assefa Dr. Murthy S. Ganthu
2	Amare Shibiru	Water Quality Dynamics in Awash River Basin, Ethiopia	Dr. Zebene Kiflie Dr. Agizew Nigussie
3	Gutema Moreda	Studies on Treatment of Post tanning Wastewater Using Immobilized Cell Nanoporous Activated Carbon Reactors with Minimum Sludge Production	Dr. Ganesan Sekaran Dr. Berhanu Assefa
4	Aysanew Gorems	Studies on Two –stage Partial Nitrification-Annamox Processes in Granular Sludge Reactors for the Removal of Nitrogen from Tannery Wastewater	Dr. S.V. Srinivasan Dr. Berhanu Assefa
5	Mulugeta Tamere	Modeling of Functional Wheat-based Extrusion Process Conditions	Dr. Shimelis Admassu Dr. TS Workneh Prof. H.S. Ramaswamy
6	Helen W/Michael	Design and Development of Starter Culture from Kocho	Dr. Shimelis Admassu
7	Yishak Worku	Processing Effects on Bioactive Compounds of Ethiopian Specialty Coffee	Dr. Shimelis Admassu Dr. Tarekegn Berhanu
8	Hana Berhanu	Characterization and Utilization of Enset/Enset Ventricosum/ Fiber for Pulp and Paper Production by Using Organosolv Pulping Technologies and Optimization of its Process	Dr. Zebene Kiflie

		Conditions	Dr. Abubeker Yimam
9	Mulugeta Yilma	Optimal Multi-objective Wasteload Allocation Modeling as a River Management tool: the case of Little Akaki River Using QUAL2Kw-Genetic Algorithm Models	Dr. Zebene Kiflie Dr. Nebiyeleul Gessesse Dr. Andreas Windsperger
10	Shegaw Ahmed	Studies on the Application of Ethiopian Plant Species of Mekmeko (<i>Rumex Abyssinicus</i>) in Leather Processing	Dr. Balaraman Madhan Dr. Berhanu Assefa
11	Debebe Worku	Development and Quality Characterization of Encapsulated Bioactive Product from <i>Moringa Stenopetala</i> Extract	Dr. Shimelis Admassu . Dr. Asfaw D.
12	Gebre-medhin Gebremariam	Application of Atmospheric Pressure Cold Plasma to Decontamination of Peanut	Dr. Shimelis Admassu . Dr. Tarekegn Berhanu.
13	Medhanit Mamaye	Study on Utilization and Characterization of Sugarcane Bagasse (<i>Saccharum Officinarum L.</i>) for Pulp and Paper Production in Ethiopia	Dr. Zebene Kiflie Dr. Sisay Feleke Dr. Abubeker Yimam
14	Desta Solomon	The Integration of Biological Oxidation and Homocatalytic Solar Driven Advanced Oxidation Process for the Treatment of Textile Wastewater	Dr. Zebene Kiflie
15	Deribew Tefera	Enzyme-Aided Supercritical CO ₂ Extraction of Value Added Compounds from Tomato Waste Obtained from Tomato Processing Factories in Ethiopia	Dr. Abubeker Yimam Prof. Whasik Min Prof. Youn-Woo Lee

16	Elyas Belay	Hydrolysis of Biomass cellulose using newly prepared sulfonated carbonaceous catalyst	Dr. Beteley Teklola
17	Yoseph Legesse	Process Optimization and Quality Characterization of Tef Flour for Industrial Manufacturing of Injera	Dr. Shimelis Admassu.