

CURRICULUM – VITAE OF PROF. DR. ARSHAD CHUGHTAI

Name : Arshad Chughtai
Father's Name : Muhammad Aslam Chughtai
Date of Birth : 28 September, 1953
Marital Status : Married with two children
Present Designation : Professor of Chemical Technology
Present Employer : University of the Punjab
Postal Address : Institute of Chemical Engineering & Technology,
Quaid-e-Azam Campus, University of the Punjab,
Lahore 54590 Pakistan
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QUALIFICATIONS

Ph. D. (Chemical Engineering) 1993
School of Chemical Engineering, University of Birmingham, UK

M. Sc. (Nuclear Engineering) 1981
Centre of Nuclear Studies, Quaid-e-Azam University, Islamabad

B. Sc. (Chemical Engineering) 1979
Institute of Chemical Engineering, University of the Punjab, Lahore

EXPERIENCE

Thirty year experience of teaching, research and infrastructure development at university level. Joined University of the Punjab in 1982 as lecturer promoted to Assistant Professor in 1988. The PhD was completed in 1993, promoted to Associate Professor in 1994, and then promoted to Professor in 2000.

MAIN TEACHING AREAS

Chemical Reaction Engineering, Instrumentations for Process Measurement, Process Dynamics and Control, Chemical Plant Design, Material and Energy Balance Calculations, Environmental Engineering, Unit operations of Chemical Engineering.

INTERESTED AREAS OF RESEARCH

Chemical Reactors, Catalysis, Pollution Control, Fischer- Tropsch Gas to Liquid Technology, Fast Pyrolysis of Biomass, Membrane Technology for Effluent treatment and Recycling.

CURRENT RESEARCH PROJECTS

- Development and Characterization of Promoted Iron Catalysts For Fischer-Tropsch Synthesis to Study Gas to Liquid Technology; *HEC Project Rs. 4.74 Million*
- Catalytic Hydro-dechlorination of Chlorophenols; *HEC Project Rs. 1.4 Million*
- Fast Pyrolysis of Agriculture Residues to produce Bio-oil

CONTRIBUTION FOR NEW INFRASTRUCTURE DEVELOPMENT S

Establishment of Laboratories

1. Established following research laboratories at Engineering Research Division:
 - i) Catalyst Characterization Laboratory having Chemisorb 2750, Atomic absorption spectrometer.
 - ii) Main Analytical laboratory equipped with GC with FID and ECD Detectors, GC with FID and TCD Detectors, HPLC with UV and RI Detectors, UV-Vis Spectrophoto Meter, Plate and Cone Rheometer, Karl Fischer Titrator.
 - iii) Chemical Reaction Engineering laboratory equipped with Bubble Reactors.
2. Established Textile Processing Technology Division (well equipped lab) which was upgraded to the Department of Textile Engineering & Technology

Details of PCI prepared for Strengthening Infrastructure Development

For sustained funding for the ongoing and forth coming projects the following PCI were prepared and submitted to Higher Education Commission and Ministry of Science & Technology.

Sr. No	Project Title	Year	Amount Rs. Million	Remarks
1	Strengthening Laboratories of	2004	38.00	Received Rs. 11.3 Million, Two state of

	Engineering Research Division			the Art Labs. Established
2	Strengthening of Textile Processing Technology Division	2005	89.00	Received Rs. 46.3 Million, Equipments worth of Rs.14.0 Million purchased, Building worth of Rs. 9.80 Million initiated
3	Up-gradation of Unit Operation Laboratories	2006	79.80	-
4	Establishment of School of Engineering Research	2007	489.26	-
5	Launching of New Disciplines at Institute of Chemical Engineering & Technology	2007	150.0	-
6	Up gradation of Textile Processing Technology Division to Department of Textile Engg. & Technology	2009	156.71	-
7	Design Manufacturing and Commissioning of Pilot Plant for Conversion of Synthesis Gas into Diesel	2011	900.00	-

ADMINISTRATIVE RESPONSIBILITIES AT THE FACULTY LEVEL

- Head Engineering Research Division
- Coordinator M. Phil / Ph. D. Programmes in Chemical Engineering at the Institute of Chemical Engineering & Technology
- Chairman, Department of Textile Engineering & Technology
- In charge Instrumentation and Process Control Laboratory
- In charge Library, Institute of Chemical Engineering & Technology
- In charge Curriculum Revision Committee for Chemical Engineering

RESPONSIBILITIES AT UNIVERSITY LEVEL

Member Senate

Member Academic Council

PREVIOUS RESPONSIBILITIES

Students Advisor at the Institute of chemical Engineering & Technology

Member Selection Committee (Technical Persons)

Member Disciplinary Committee for Unfair means Cases in Examinations

COLLABORATION AT NATIONAL LEVEL

- Inked MOU with Textile International for Identification of Azo Dyes and Phthalates in Textile Products
- Participated as Member of the Committee for the Promotion of Technical Textiles

PROFESSIONAL AFFILIATION/RESPONSIBILITIES

- Member Pakistan Institute of Chemical Engineers
- Professional Engineer registered at Pakistan Engineering Council
- External Examiner Bahauddin Zakaria University, Multan
- External Examiner University of Engineering & Technology, Lahore.
- HEC Approved Supervisor for Ph. D (Chemical Engg.)
- Member HEC National Curriculum Review Committee for Chemical Engineering
- Member Expert (PEC) for Two Subjects for Engineering Practice Examination
- Member Selection Board National Textile University Faisalabad
- Member Academic Council National Textile University Faisalabad
- Member National Curriculum Review Committee (HEC), 2003 & 2008

INTERNATIONAL CONFERENCES (ATTENDED OR CONTRIBUTED)

- First Gas-liquid-solid Reactors and Reaction Engineering, September 16-19, (1992) Columbus (Ohio) USA.

- Institution of Chemical Engineers Research Event, January 7-8, (1993) University of Birmingham UK
- Europ-Cat 1, Montpellier, September 12-17, (1993) France
- International Conference on Sustainable Water Management, September 15-17 (2010), Mehran University of Engineering & Technology, Jamshoro, Sind, Pakistan
- International Conference on Textile & Clothing, March 28-29, (2011), Lahore Pakistan

NATIONAL CONFERENCES (ATTENDED OR CONTRIBUTED)

- Research & Development Needs in Textile Processing Industry, March 28, (2006) Pakistan
- Research & Development Needs in Pulp & Paper Industry, September 20, (2006) Pakistan
- Energy Technology Market for Textile Processing, December 15, (2009) Lahore, Pakistan
- 3rd Symposium on Engineering Sciences March 10, (2010) Lahore, Pakistan
- Energy Solutions from Coal & Biomass, March 26-27, (2010) University of Engineering & Technology, Lahore Pakistan
- Conference on Process & Energy, December 27-28(2010). NFC Institute of Engineering & Technology, Faisalabad, Pakistan
- 3rd National Oil & Gas Conference, January 29, (2011), Islamabad, Pakistan
- International Conference on Engineering Sciences, 28-29 February, 2012, Punjab University, Lahore.

Current PhD Projects Being Supervised

Supervision is being provided for the following Ph. D research work

1. Factors Influencing the Formation of Producer Gas from Coal and Biomass in Circulating Fluidized Bed Gasifier **(Ph. D Scholar: Saddiq Hussain)**
2. Fast Pyrolysis of Agricultural Residues: Effects of Operating Parameters on Yield and Quality of Pyrolysis Products **(Ph. D Scholar: Engr Najaf Ali)**

3. Development and Characterization of Promoted Iron Catalyst for Fischer Tropsch Synthesis to study Gas to liquid Technology (**Ph. D Scholar: Engr Hafiz Asghar Ali**)
4. Catalytic Hydrodechlorination of Chlorophenol Using Co-current downflow contactor(**Ph. D Scholar: Engr Asim Rehman**)

LIST OF INTERNATIONAL & NATIONAL PUBLICATIONS

1. Sohaib Ahmad, Hafiz Asghar Ali, Hafiz Abdul Mannan , Abdul Sattar, Arshad Chughtai, (2012),” Fischer-Tropsch Synthesis in a Fixed Bed Tubular Reactor using Cobalt and Iron Catalysts” (submitted for publication in J. Faculty of Eng. & Tech. PU)
2. Hafiz Asghar Ali, Arshad Chughtai, Abdul Sattar, Ali Raza Bodla, Muhammad Arif Butt,(2011), “ Waste Frying Vegetable Oil As A Source Of Biodiesel”, Pakistan Journal of Science, (accepted for publication).
3. .M. A. Virk, M. A. Butt, **Arshad Chughtai**, M. Ahmad, I. H. Khan and K. M. Deen, (2010), “Failure Analysis of Heat Exchanger Fluid Vapor Phase Vent Lines in a Polyester Plant”, J. of Engineering Failure Analysis, 17, 447-454, (U.K.)
4. Hafiz Asghar Ali, **Arshad Chughtai** and Abdul Sattar, (2009), “Synthesis of Quality Silica Gel; Optimization of Parameters” J. Faculty of Engineering & Technology, 21-35, (Pakistan).
5. Muhammad Tahir, **Arshad Chughtai** and Abdul Sattar, (2009), “Preparation of activated carbon from Acacia Arabica by Chemical activation for possible use in the treatment of Textile Effluents” Mehran University Research Journal of Engineering & Technology, October, Vol. No. 28(4) 421-428, (Pakistan).
6. M. Saif Ur Rehman, Ayyaz Muhammad, Aamir Shafeeq, **M. Arshad Chughtai**, Arshid Mehmood Ali and Farooq Ahmed (2008), “Decolorization of Turquoise Blue Dye by Ozonation, O₃/H₂/O₂ and Fenton Processes Research” J. of Environmental Science, Vol. 2(5), 310-315, (U.S.A).
7. A. Muhammad, A. Shafeeq, M. A. Butt, Z.H. Rizvi, **M. Arshad Chughtai** and S. Rehman, (2008), “Decolorization and Removal of COD and BOD from raw and biotreated textile dye bath effluent through advanced oxidation Process” Brazilian J. of Chemical Engineering, Vol. 25, No.3 453-459, (Brazil).
8. Muhammad A. Butt, Muhammad A. Virk, **Arshad Chughtai**, Ijaz H. Khan and Munir Ahmad, (2007), “T-Type Naphtha Pump Strainer Mesh Failure Analysis” Proceeding Academy of Sciences Islamabad, 44:4 295-303, (Pakistan).
9. Sadiq Hussain, **Arshad Chughtai** and M. Arif Butt, (2006), “Hydrodynamics Study of 3-Phase Inverse Fluidized Bed” J. Faculty of Engineering & Technology, University of the Punjab, 39-46, (Pakistan).

10. Hamid Sattar, Syed Nadir Hussain, M. Anwaar Asghar, **Arshad Chughtai** & M. Arif Butt (2006) "Production & Characterization of Activated Carbon From Indigenous Coal (Lakhra Coal)" J. Faculty of Engineering & Technology, University of the Punjab. 79-90, (Pakistan)
11. Zafar Iqbal Zafar, M. Arif Butt & **Arshad Chughtai**, (2006) "Desulphurization of Indigenous Coal with Sorbent Injection" J. Faculty of engineering & Technology, University of the Punjab, 9-15, (Pakistan).
12. M. Arif Butt, **Arshad Chughtai**, Arif Jamil, I. H. Khan, M. S. Anjum and T. Aziz, (2006) "Rust Appearance Control in Humid Summer Season Using Environmental Corrosivity Evaluation" J. Faculty of Engineering and Technology, University of the Punjab, 55-78, (Pakistan).
13. Waheed-ur-Rehman, M. Arif Butt, **Arshad Chughtai**, Tahir Jamil and Abdul Sattar, (2006), "Effect of Various Solvents on the Viscosity-average Molecular Weight of Poly(Vinyl Acetate)" J. Faculty of Engineering & Technology, University of the Punjab, 1-8, (Pakistan).
14. H. M Anwar Asghar, S. N. Hussain, H. Sattar, **Arshad Chughtai** and M. Arif Butt (2006), "Turbulent Bed Contactor: Hydrodynamics Studies Using Coarse Particles" J. Faculty of Engineering & Technology, University of the Punjab, 91-101, (Pakistan).
15. Sikandar Rafiq, M. Arif Butt and **Arshad Chughtai**, (2006), "Removal of Chromium (VI) from Electroplating Wastewater by Adsorption" J. Faculty of Engineering & Technology, University of the Punjab, 31-38, (Pakistan).
16. M. Arif Butt, Kurram Shahzad, **Arshad Chughtai** and I. H. Khan, (2001-2002), "Water Borne Anticorrosion Paints" J. Faculty of Engineering & Technology, University of the Punjab, 61-68, (Pakistan).
17. M. Arif Butt, Z.H. Rizvi, **Arshad Chughtai** and I. H. Khan, (2001-2002), "A Review Report on Corrosion of Iron and Steel" J. Faculty of Engineering & Technology, 1-11, (Pakistan).
18. M. Arif Butt, Javaid Ahmad, **Arshad Chughtai** Rafiq Ahmad and I. H. Khan (2001-2002), "General Overview of 3L Epoxy/PE Underground Pipeline Coating" J. Faculty of Engineering & Technology, 23-42, (Pakistan).
19. Maqsood Ahmad, Reheela Perveen, M. I Rajoka and **Arshad Chughtai**, (1999), "Production of Xylose from Hemicellulose (corncoobs)" J. Pak. Inst. Chem. Engrs. Vol. XXVIII, 55-58, (Pakistan).
20. Maqsood Ahmad, Reheela Perveen, M. I Rajoka and **Arshad Chughtai**, (1999), "Production of Xylitol from Xylose by *Candida tropicalis*: Effect of Substrate concentration" J. Pak. Inst. Chem. Engrs., Vol. XXVIII, 17-22, (Pakistan).

21. **Arshad Chughtai** A. P. Boyes and J. M. Winterbottom, (1996) "Reaction Studies in Packed Bed Co-current Downflow Contactor Reactor" J. Pak. Inst. Chem. Engrs., Vol. XXIV, 109-114, (Pakistan).
22. **Arshad Chughtai** A.P. Boyes and J. M. Winterbottom, (1996) "Gas-Liquid Interfacial Area Measurement of A Novel Bubble Column Reactor Using Sulphite Oxidation" J. Pak. Inst. Chem. Engrs. Vol. XXIV, 1-8, (Pakistan).
23. Adrian P. Boyes, **Arshad Chughtai**, Zaffer Khan, Sugat Raymahasay, Andrew T. Sulidis & John M. Winterbottom, (1995), "The Cocurrent Downflow Contactor (CDC) as a Fixed Bed and Slurry Reactor for Catalytic Hydrogenation" J. of Chemical Technology and Biotechnology, 64: 1: 55-65, (U.K).
24. Adarian P. Boyes, Sugat Raymahasay, Mike W. Tilston, Xia X. Lu, Sandra Sarmento, **Arshad Chughtai** and John M. Winterbottom, (Oct. 1994), "The Cocurrent Downflow Contactor- A novel reactor for Gas-Liquid-Solid Catalyzed Reactions" Chemical Engineering and Technology, 17: 5:307-312, (Germany).
25. **Arshad Chughtai**, A.P. Boyes and J. M. Winterbottom (1994), "Catalyst Preparation and Characterization for the packed-bed Cocurrent Downflow Contactor Reactor" J. Pak. Inst. Chem. Engrs., Vol. XXI-XXII, 57-60, (Pakistan).
26. A. P. Boyes, **Arshad Chughtai**, Z. Khan. S. Raymahasay, A.T. Sulidis & J. M. Winterbottom, (1993), "The Cocurrent Downflow(CDC) Contactor as Fixed Bed and Slurry Reactor for Catalytic Hydrogenation" Proceeding Europa Cat-I Montpellier September, 12-17, (France).
27. **Arshad Chughtai**, A. P. Boyes and J. M. Winterbottom, (1993), "Some Further Studies With Cocurrent Downflow Contactor Reactor", Proceedings, Institution of Chemical Engineers Research Event, University of Birmingham, January 7-8, Vol. II, 591-593, (U.K.)
28. A.P. Boyes, **Arshad Chughtai**, X.X. Lu, S. Raymahasay, S. Sarmento. M. W. Tilston and J. M. Winterbottom (1992), "The Cocurrent Downflow Contactor (CDC) Reactor: Chemically enhanced mass transfer and reaction studies for slurry and fixed-bed catalytic hydrogenation." Chem. Eng. Sci., 47, 3729-3736, (U.K.)

SUPERVISION OF DESIGN /RESEARCH PROJECTS

Supervision has been provided to final year undergraduate students for preparation of following design projects' reports:

Sr. No.	Student's Name	Design Project Title	Year
1	M. Ilyas, Hafiz M. Azam	Ethyl Benzene from Ethylene and Benzene using Mobil-Badger Process	1993
2	M. Usman Malik and	Petroleum Refining	1993

	Abdul Ghaffar Bajwa	Hydrodesulphurization (Shell Process) of 200, 000 bbl/day of Gas oil	
3	M. Nadeem Akram and Asim Waseem	Pretreatment Plant for the Waste Water of the Paper Industry	1993
4	Mehmood –ur-Rahman and Haq Nawaz Chatta	Deodorization of Kerosene Oil	1993
5	Zulfiqar Ali and Najeeb Ullah	Cyclohexane from Benzene	1995
6	Maaz Mahmood	Vinyl Acetate Monomer	1995
7	Moazzam Afzal Hassan	Production of Ethylene Oxide from Ethylene	1995
8	Abdur Rauf	Production of Sunflower Cooking Oil from Sunflower Seeds	1995
9	Hafiz M. Akhtar and Imran Mahmood	Formaldehyde from Methanol	1996
10	M. Waseem Idrees and Mubashar Abbas Syed	Waste Water Treatment Plant	1996
11	Khurram Ashfaq, M. Asif, Faraz Haider and M. Asghar	Production of 1700 Tons per Day of Urea	1997
12	Muhammad Ilyas ,Rehman Ali, Sadaqat Zahoor and Furqan Ali	Hydro cracking of Naphtha	1997
13	Imran Saeed, Muhammad Rafi, Ali Hassan and Muhammad Nasir	Production of Formic Acid	1997
14	Waseem Zulfiqar	The Production of 10 Ton/Day of $\text{Na}_2\text{SO}_3 \cdot 7\text{H}_2\text{O}$	1997
15	Rashid Mahmood, Usman Ashiq and Naveed Kamran	Hydrodesulphurization (Shell Process) of 20,000 BBL/Day of Kerosene oil	1999
16	Rizwan Ahmad, M. Kashif Shahzad, Khurram Ashfaq Malik and Naveed Ahmed	Fluid catalytic Cracking of Vacuum gas Oil (50,000 BPD)	1999
17	Badar-Us-Salam, Hafiz Abdur-Rehman and Adnan Ahsan	Removal of CO_2 from 200,00 bbs/hr Reformer Catalytic Gases	1999
18	Nasir-ud-Din Humayon, Faisal Hameed and Faraz Mahmood	Effluent Treatment of Petroleum refinery	1999
19	Khalil Ahmad and Hassan Shahid Rasheed	Production of 100 TPD Sorbitol by Catalytic Hydrogenation of Glucose Using Ruthenium Catalyst.	2000
20	M. Azhar Alam, Abid	Propane Deasphalting of 5,000 bbl/day of	2000

	Anwar, M.Khalid and M. Khawar Spal	Reduced Crude Oil	
21	Nizakat Ali, Haroon Rasheed, Tahir Amir and Naeem Sardar	Production of Vinyl Acetate by Catalytic Oxidation of ethylene	2000
22	M. Attique-ur-Rehman, Ajmal Farooqi and Anwar Mahmood Kamran	Fuel Oil Refinery of 15,000 BPSD of 39.47 API Tando Alam Crude Oil	2000
23	Irfan Ullah, Shahid Ali and Muhamamd Mumtaz	Prilling of Molten Urea Using Natural Draft Prilling Tower	2000
24	Shahzad Ali, Faisal Ahmed and Imran Ali	Fluid Catalytic Cracking of Vacuum Gas Oil	2002
25	Sajida Nawaz and Ayesha Waheed	Phthalic Anhydride from Coal-Tar Naphthalene	2002
26	Javed Iqbal, Aamir Mahmood, Raza Ur Rehman and Rab Nawaz	Synthesis Gas by Stream Reforming of Natural Gas	2002
27	Khalid Suleiman, Kamran Khalid, Imran Ahmad and Bilal Ahamed	Distillation of Crude oil	2002
28	M. Mushfiq Hussain, Ali Razaq Malik, M. Faisal and Fahim Ahmad	Processing of Vacuum Gas Oil Through Diesel Max Process	2003
29	Habib Ullah Khalid, Nadir Raza Ali, Ghalib Aizaz and Shahid Mohyuddin	Fluidized Catalytic Cracking of Vacuum Gas Oil	2003
30	Wajih-ur-Rahman, Iftikhar Ahmad, Salman Altaf and Ijaz-ul-Haq	Ethyl Alcohol by Fermentation of Molasses	2003
31	Sahban Z. Ali Tauseef A. Karim, Ali Akbar F. S. and Asad A Jawa	Production of 1000 Tons/Year of Maleic Anhydride Via Air Oxidation of n-Butane.	2003
32	Asma Tasneem, Sarfraz Malik and Ishrat Shees Khan	Production of 1000 tons per day of Methanol From Synthesis Gas	2003
33	Saqib Mubarak, Haris Raza, Muzzafar Khan, Mohsin Raza and Nazir Ahmad	Visbreaking of Vacuum distillation bottoms	2003
34	Faisal Mahmood, Sakhawat Ali and Irfan	Manufacture of Caustic Soda form Rock Salt	2003

	Latif		
35	Asim Rehman, Shazad Altaf and Muffakir Ahsan	Production of Purified Terethalic Acid	2003
36	Khizar Mahmood Chaudhary, Javeed Arshaf Awan and Umair Qamar Qureshi	Extraction of Helium From 69 MMSCFD of Natural Gas	2003
37	Sadia Umer, Tayyaba Akhtar and Farah Mushtaq	Coal Gasification	2003
38	Ghulam Murshid, Muhamamd Farooq and Farhan Khawar	Production of Pentarythritol	2004
39	Nauman Talat, Rizwan Hanif, Abid Mahmood and Tayyab Rashool	Gasoline Production by Plat forming Naphtha with CCR	2004
40	Amjad Saleem, Mansoor Elahi and Ahmad Raza	Poduction of Benzene from Toluene using Thermal Hydrodealkylation	2004
41	Amish Junaid Rashid Bukhari, Fawad Ahmad Khan and Salman Chisti	Production of Terethalic acid by Liquid Phase Oxidation of p-Xylene	2004
42	M. Riaz, Tasawwar Shabbir, Mubashar Sharif and Qamar Zaib	The Manufacture of 8000 Tons per year of Benzoic Acid by Liquid Phase Air oxidation of Toluene.	2005
43	Tariq Saghir, Zeeshan Ali Chughtai, Naheed Watto and Syed M. Ahsan Taqvim	Processing of 150 Ton/day of BTX into 90 Percent pure Benzene as top product	2005
43	Zeeshan Ahuja and Muhamamd Nadeem	Production of Methanol from Synthesis Gas	2005
44	Shaib Shafiq, M. Sajjad Afzal, Waseem Afzal and Muhamamd akram	Production of Acetone By Dehydrogenation of Isopropyl Alcohol	2006
45	Hafiz Shahzad Ahmad, M. Farooq, M. Kamran Asif and M. Akram	Production of of Diethyl Ether From Ethyl Alcohol	2006
46	H. Abid Hussain, Khurram Raufi, Riffat Habib Khan and Afzal Ali	Propane Deasphalting of Reduced Crude Oil	2006
47	Farooq Sharif, M. Bilal	The Production of Acetaldehyde From	2006

	Qadri, S. Shaib Raza and M. Badar Siddiqi	Ethanol	
48	Usman Shahid, Najam-uz-Zaman, Salman Hanif and Yasir Khalid	Hydrodesulphurization of 25,000 BBL/Day of Gas Oil	2006
49	Syed Adeel Ali Raza Naqvi, Syed Tahir Raza, Faraz Ali and Saqib Muzafar	Characterization of Waster Water of Paper & Pulp Industries of Pakistan	2008
51	Hamood Ahmad Asad, Asad Ullah, Syed Zuneir Ali, M. Junaid Taufiq	Producton of 24 Tones/day of Acetaldehyde from Dehydrogenation of Ethyl Alcohol	2006
52	Shahid Ali, Ali Fawad Mirza, Jawad Rizvi and Irshad Ahmad	The Manufacture and Analysis of Sodium Based Grease	2007
53	Faizan Ahmad, M. Iqbal, Naeem Qamar and Rehan Riaz	Production of N-Butanal by Hydroformylation of Propylene	2007
54	M. Aslam Rashid, M Imran Khurram Imran Khan and Khalid Anwar	Alkylation of Gasoline by H ₂ SO ₄ Method For 10000 BBL per day Alkylated Gasoline	2007
55	M. Amir Mazhar Iqbal, M. Yasir Rizwan and M. Naqi Shah	Production of 20,000 Tons/Years Ethanol Amine	2007
56	Nauman Ahmad, H. M. Zahid Naeem, Malik Sajid Hussain and H. M. Waseem	Production of 20,000 Tons/Year of Ethylene from Naphtha as a feed Stock	2007
57	H. Atif Farooq, M. Rabie, Mian Ahmad Raza and H. Zaeem Aman	Production of Benzene by Hydrodealkylation of 2000 BBL/day of Toluene by Thermal Process	2007
58	Shahzad Yousuf, Hassan Riaz, M. Ghufraan Naqvi and Raja Haider Javed	Expansion of LPG Plant	2007
59	Sardar Abdul Wali, Hafiz Muneeb-ur-Rehman, Naseer Ahmed, Muhammad Saleem Hasrat and Nadeem Shahzad	Production of 200 M tons/day Ethylene Glycol from Ethylene oxide.	2008
60	Ammar Maqsood, M. Azam Manzoor and Imran Riaz	Production of 50 Ton/Day of Ethylene From Ethanol.	2008
61	Kamran Ahmad, Faisal	Gasification of Municipal Solid Waste	2008

	Saeed, M. Ammar Ali and M. Ajaz Ahmad		
62	Faraz Anjum Sheikh, Sajid Ali, Umair Aslam Butt and Iftikhar Ahmed Shahid	Manufacturing of 50 Ton/Day of Hydrogen Peroxide Using Anthraquinone Process	2008
63	Naveed Anjum, M. Sabir Hussain, Osama Hamidullah, M. Zulfiqar	Manufacturing of Acrylonitrile	2008
64	Zaman Sajid, Zohaib Ali Butt, Khuram Saleem, Ahmed Sharif	Production of 25000 Ton/Year Butadiene by the Catalytic Dehydrogenation of Butene	2008
65	Faraz Anjum Sheikh, Sajid Ali, Umair Aslam and Iftikhar	Manufacturing of H ₂ O ₂	2008
66	M. Adnan Raza, Muzammal Saleem, M. Imran Rashid and M. Amir Shahzad	Coal Gasification	2008
67	Usama Iftikhar, Mubasher Javaid, Umair Akhtar and G.M. Hassan	Nitrogen rejection unit (NRN) for the purification of 137 MMSCFD of raw natural gas having 19 mol% of nitrogen to an outlet specification of less than 8mol%	2009
68	Mohsin Ali, Shahzad Rasheed, Muhammad Usman Khan, Hamad Hassan and Naveed Ahmad	Fluidized-Bed Catalytic cracking of 50,000 BPSD of 25.2 API Heavy Gas Oil	2009
69	Rabya Aslam, Umara Islam and Hiba Iftikhar	Production of Diesel from Synthesis Gas Using Fischer-Tropsch Process	2009
70	Mudassar Nawaz, M. Arsalan Amin and H. M. Ali Tayyab	Hydrotreatment of 25000 BBSL/Day of Heavy Naptha	2009
71	M. Hassan Ibrahim, M. Salman Khan, Shahzad Ahmed and Azam Aslam	Isomerization of 100 Tonnes Per Day of Mixed Xylenes	2009
72	Umar Hayat, M. Abubakar, Faiq Raffabi and Bilal Azam	Manufacture of 1200 Tones Per Day of Diammonium Phosphate (DAP)	2009
73	Umer Farooq, Tahir Nazir, Waqas Aziz Hashmi and Aamir Shamas	Hydroprocessing of 30,000 bbl/day of Arabian Atmospheric Reduced Crude (ARC) using FBR Technology	2010
74	Sana Ullah, Faheem Riaz, Muhammad Naeem Iqbal and Affan	Production of 25000 ton / year of Di-Methyl Ether	2010

	Ahmed		
75	Awais Abdullah, Usman Rsheed, Khizar Hayat and Irfan Iqbal	Production of 14,000 bbl/day of Liquid Fuel (Diesel) Using Fischer-Tropsch Process	2010
76	Waseem Safdar, M. Kashif M. Mujeeb-ur-Rehman and Imran Khan	The Selective Hydrogenation of 10,000 BBL/Day of Pyrolysis Gasoline	2010
77	Tayyab Saeed, Asad Ali, Ali Zulqarnain Khan and Usman Ali	Production of High Octane Gasoline Using HF Alkylation Process	2010
78	Arsalan Bhatti, Umair Umer, H. Tariq Mahmood, Abdullah Mufti	Production of Methanol (ICI Low Pressure) Using Autothermal Refining of Natural Gas	2011
79	Ammar Saleem, Faisal Ali, Zain Ahmad Siddiqi, Abdur Rehman	Coal Gasification & Clean-up of Synthesis Gas	2011
80	Muhammad Tanveer, Ghulam Mustafa, Abdul Mutlib, Awais Sattar Ghouri	Production of Cumene Using Alkylation of Benzene and Propylene by Q-Max Process	2011
81	Aqeel Abbas, Muhammad Ali Rafiq, Ibrar-ur-Rehman, Waqas Anwar	Production of Substituted Natural Gas From Raw Synthesis Gas	2012
82	Muhammad Aamir Rehman, Muhammad Saleh, Muhammad Rizwan, Abdullahi Ahmad Mahmood	Isomerization of Light Straight Run Naptha to Enhance Octane Rating of Gasoline	2012
83	Waqas Sarfraz, Ali Toqeer, Shazib Rashid, Muhammad Khurram	Coal Gasification For the Production of Synthesis Gas	2012

Supervision has been provided to final year undergraduate students for preparation of following unit process project / research project reports:

Sr. No.	Student's Name	Process Title	Year
1	Mian Mehmood –ur-Rehman and Haq Nawazchatha	Deodorization of Kerosene Oil	1993
2	Ahsan Jawad Ali	Preparation and Characterization of Zinc Oxide (Desulphurization)	1999
3	Awais Abdullah and	Nickel Catalyst Preparation	2009

	Ali Zulqurnain Khan		
4	Waseem Safdar, Muhammad Kashif, Muhammad Majeeb Ur Rehman and Imran Khan	Synthesis of Water Repellent Finish for Textile Fabrics	2009
5	Awais Sattar, Adnan Munir, Ejaz, Muhammad Ali	Preparation of Pulp Using Rice Straw	2009
6	Tariq Mahmood, Umair Umar, Arslan Bhatti and Gulfam Khan	Dyes Removal from Textile Effluent Using Chemical Coagulation	2009
7	Raza Muddasser Alvi, M. Waqas Bukhari and M. Asif Khan	Preparation of Molecular Sieves (Zeolites)	2010
8	Syed Ejaz Haider, Awais Sattar Ghouri, Adnan Munir and Mohammad Ali	Production of Pulp and Paper from Rice Straw By Soda Process	2010
9	Usman Ahmad, Waqas Ali, Uzair Khan and Mujahid Iqbal	The Preparation of Gamma Alumina Powder	2010
10	Muhammad Sajjad Haider, Muhammad Arif, Muhammad Adil	Preparation of Zeolite SBA 15	2012
11	Usama Asif, M. Nauman, Uzair Shezad, Farooq Alam	Preparation of Emulsifier	2012
12	Hamza Nasir, Muhammad Shahid	Preparation of Zeolite MCM41	2012

Supervision has been provided to M. Sc (Engg) Chemical Engineering students for preparation of research theses/technical reports on following topics:

Sr. No.	Student's Name	Thesis Titles	Year
1	Asim Ali Khan	Environmental Pollution in Pakistan	1997
2	Hafiz Muhammad Kamran	The Optimization of Sodium Salt in the Production of Dioctyl Phthalate	1998
3	Khalid Ijaz	Research Report on Physical Properties of Polyester Fibre	1998
4	Jawad Hassan Bhatti	Hydrodesulfurization of Hydrocarbons (Naphtha and Kerosine)	1999

5	Najeeb Ullah Sheikh	The Dust Collection Equipments for Cement Industry	1999
6	Zaheer-ul-Islam	Environmental and Safety Aspects of a Nuclear Plant	1999
7	Hafiz Muhammad Ishaq Faridi	Solid Waste Management	2000
8	Maqsood Ahmad	The preparation of Xylitol from Hemicellulosic material	2000
9	Hafiz Muhamamd Iqbal	The Reactive Dyes (for cotton): manufacture and applications	2000
10	Rehman Hanif	Removal of Carbondioxide by Catacarb System	2000
11	Muhamamd Qasim	Feasibility of Bamboo as a Paper Raw Material	2000
12	Muhammad Fahim Azam	Gas Concentration Process in Petroleum Refinery	2001
13	Zafar Iqbal Zafar	Desulfurization of Indigenous Coal With Sorbent Injection	2004
14	Ayyaz Muhammad	Application of Advance Oxidation Processes on Raw and biotreated Textile Dyebath Effluent	2004
15	Saddiq Hussain	Hydrodynamics Study of 3 Phase Inverse Fluidized Bed	2004
16	Hafiz Muhammad Anwaar Asghar	Three Phase Fluidized Bed	2005
17	Hamed Sattar	Preparation & Characterization of Activated Carbon From Indigenous Coal (Lakhara Coal)	2005
18	Syed Nadir Hussain	Study of Mass Transfer Characteristics of Turbulent Bed Contactor	2005
19	Rasool Ahmad	Kinetic Study of Desulfurization of Indigenous Coal	2005
20	Waheed-ur-Rahman	"Effect of Various Solvents on Viscosity-Average Molecular Weight of Poly Vinyl Acetate	2006
21	Sikander Rafiq	"Removal of Chromium (VI) From Electroplating Wastewater by Adsorption	2006
22	Muhammad Usman	"Removal of NOX's Emitted from Coal Combustion	2006
23	Muhammad Zahid Arif	Cooling Water Treatment of the Cooling Tower	2006
24	Najaf Ali Awan	Removal of SOX's Emitted From Coal Combustion Using Alkaline Scrubbing System	2006
25	Naveed Haider	Application Techniques of Reactive Dyes	2006

	Buzdar		
26	Ms. Sofia Chaudhry	Sulfation of Soybean Oil	2006
27	Muhammad Tahir	Preparation of Activated Carbon from Indigenous Resources and Its Utilization for the Treatment of Textile Effluents	2006
28	Muhammad Akmal	Copper Recovery From Wastewater Using and Electrochemical Rotating Barrel Reactor	2006
29	Saboor Ahmad Bhatti	Separation and Characterization of Wax from Sugarcane Mud	2006
30	Muhammad Yasin Naveed	Study the Effect of Variation in Operating Parameters on the Performance of An Industrial Scale Reverse Osmosis Plan	2006
31	Muhammad Fiaz Rafique	Development of Adhesive for Rubber/Metal Based on Resorcinol Formaldehyde Resin	2006
32	Omer Mouhhiudin	Formation and Separation of Liquid (Condensate) from Natural Gas	2006
33	Saqib Iftikhar	Ethanol Fermentation of Molasses by Yeast	2006
34	Muhammad Sarfraz Akram	Catalytic Hydrodechlorination of 2,4-Dichlorophenol Using Cocurrent Downflow Contactor Reactor	2007
35	Ms. Saba Arif	Characterization and Chemical Treatment of Pulp and Paper Industrial Effluent	2007
36	Ms. Fareeha Asghar	Production and Analysis of Biodiesel	2007
37	Hafiz Asghar Ali	Preparation and Characterization of Silica Gel	2007
38	Ms. Aneela Sabir	COD Removal from Textile Industry Wastewater by Using advance oxidation	2007
39	Mamoon ur Rashid	Waste Heat Recovery at Cement Plant	2007
40	Arshad Ali Anjum	Improvement in Supply Chain Management for Oil and Gas Sector Using Drag Reduction Theory	2008
41	M. Nadeem Amin	Synthesis of Sodium Y Zeolite From Rice Husk Silica	2008
42	Muhammad Raja Afzal	Control Philosophy and Trunk Line Isolation of a Natural Gas Processing Facility	2008
43	Muhammad Imran Ayaz	Energy Conservation in Chemical Process Plant	2011

44	Habib-ullah Khalid	Mathematical Modeling of on Stream Piping Operation in Natural Gas Pipeline	2011
45	Ashfaq Ahmad	Conversion of Rice husk to D-Xylose and optimization of the process parameters	2012
46	Hafiz Imran	To study the effect of various constituents on the light transmission value (LTV) of the glass in the float glass manufacturing	2012