











Environmental Engineering Consultants (PVT.) LTD.

## Think Green

Ever increasing stress on our natural resources, due to unchecked population growth and lack of pollution control, will inevitably lead us to an environmental catastrophe. Are we close to the tipping point? We don't know yet. But we should better prepare ourselves. One step in the right direction is to Think Green. It simply means to be conscious of our day to day activities and its impact on the environment.

Recycling is one great way of doing that. From solids to wastewater, we can recycle almost anything. The most time sensitive need is to give more and more priority to treating and recycling waste on both the individual and institutional level. We have to be proactive towards environmental sustainability by conserving our natural resources.

EEC Global is committed to help our society to tackle the complex environmental challenges faced by our country. We understand our role in promoting awareness and are passionately contributing towards the efforts to achieve a greener and healthier environment.

The greatest threat to our planet is the belief that someone else will save it. (Robert Swan)

## Introduction

EEC Global provides engineering consultancy services to its diverse client-base in the public and private sectors. The company pairs senior-level professionals with a highly motivated team of young engineers, scientists, and technologists to provide innovative and cost-effective solutions. We collaborate with well-reputed international consultants and retain a team of highly qualified local and foreign experts on our panel. We compliment our technical expertise with state-of-the-art, in-house and commercial software for the modelling of natural and engineered systems.

Engineering is our core competence—We provide womb to tomb solutions in all facets of environmental engineering. We specialize in environmental planning and management, water and wastewater treatment, water recycling and reuse, environmental mitigation and remediation, air and noise pollution control, solid waste management, and environmental site assessments.

Our team has vast experience in design and engineering of infrastructure projects including water distribution, wastewater disposal, and storm water drainage networks. We also provide solutions for building services including water supply, plumbing, fire alarm and suppression, HVAC, and building management systems. In addition, we offer a broad range of services in construction management and design review.

Over the years, EEC has successfully provided engineering and management consultancy for various environmental and infrastructure projects in Pakistan and abroad. The long list of our satisfied clients is the measure of our success.

The Earth does not belong to us: we belong to the Earth.

## Mission

We are a rapidly emerging engineering consultancy company providing sustainable solutions to complex environmental challenges. Our outstanding team of engineering professionals, with multidisciplinary backgrounds and diverse skill-sets, provide state-of-the-art and cost-effective solutions to our clients' most challenging problems.

Each employee in our company is a part of our shared vision: (a) To ensure that every member of our society has access to clean water and basic sanitation systems; (b) To overcome the global struggle for environmental protection and pollution control; and (c) To contribute to developing environmental awareness amongst communities.

We aspire to become a leading engineering company by continuous learning and knowledge sharing. We believe in extensive research and development to raise the bar of innovation and technology. Our goal is to solve new engineering challenges in novel ways, achieve excellence in engineering economics, and design to the needs of our clients.

We make the world we live in and shape our own environment. (Orison Swett)

## Values

- **Excellence:** We strive for excellence in all areas of our expertise.
- People: We create an atmosphere of harmony, trust, and teamwork while promoting leadership through empowerment.
- Clients: We gauge our success by clients' satisfaction in providing fast, cost-effective, and innovative solution to their unique problems.
- Integrity: We encourage people to speak the truth and act with integrity and self-respect in every sphere of their lives.
- **Safety:** We put safety first. Our mission is to inculcate a culture of health, safety, and environmental awareness.
- Innovation: We facilitate a stress free and supportive work environment to promote innovative ideas and out of the box thinking.
- **Opportunities:** We provide equal opportunity irrespective of gender, culture, religion, or ethnicity.
- **► Justice:** We follow merit in decision-making and ensure justice in every aspect of our business operations.



## CEO

"Engineering is our passion. We endeavor to become the leading engineering company in our domain. For us, clients' satisfaction is more than just a slogan. Our team shares a common goal to help the clients overcome the most complex engineering challenges with innovative solutions that are cost-effective, technology-responsive and tailor-made to their needs"

### Adnan Ghaffar Lodhi

Chief Executive Officer

Adnan G. Lodhi is doing his Ph.D. in surface water quality and wastewater process modelling from Virginia Tech, USA. He holds a master's degree in environmental and bachelor in mechanical engineering. He has over 18 years of experience and specializes in design and engineering of water and wastewater treatment, and water infrastructure. He is a co-author of more than 15 international publications related to wastewater modeling.

We are living on this planet as if we had another one to go to. (Terri Swearingen)

# Director

"Over the years, we have grown into a well-reputed and experienced engineering consultancy company in Pakistan and abroad. We have successfully completed challenging engineering projects, effectively meeting the quality, cost, and time objectives. We owe this success to our satisfied clients, motivated employees and empathetic patrons"

Arshad Mahmood Awan
Director Operations and Business Development

Arshad Mahmood Awan holds a bachelor's degree in civil engineering. He has over 28 years of experience in the field of water, wastewater engineering and Project management. He has actively participated in many local & international seminars, conferences, and training programs. His expertise includes business management, construction management, project bidding, proposal and acquisition, contract management, and commercial affairs.

We never know the worth of water till the well is dry (Thomas Fuller).



# Management

### Manager Technical

Muhammad Saqib Raza is a Mechanical Engineer. He has an experience of over 10 years and heads the design department. He specializes in designing of water, wastewater treatment, 3D Plant modeling, Pipe line design, water infrastructure and fire systems.

### Manager Business Development

Dr. Muhammad Saqib Nawaz has a Ph.D. in Environmental Engineering. He has over 9 years of experience and heads the business development department. He has been involved in cutting edge research on wastewater treatment and published more than six international research papers. He specializes in process design of textile wastewater treatment.

### **Manager Projects**

Abdus Sabour Khan Wazir is a Civil Engineer with Post Graduation in Construction Management . He has work experience of over 17 years in local and multinational companies. He is a team player with all the important ingredients of Projects Construction Management namely Open and effective communication, task delegation, and adherence to project timelines. He is heading the project department.

### Manager Contracts & Commercial

Rashid Javed Chugtai is an Electronics Engineer. He is an expert in local and international procurement as per project needs. He has an experience of over 17 years and heads the commercial department.

#### Manager Accounts

Masood ul Hasson holds a Master's Degree in accounting and finance. He is an expert in taxation matters and overseas transaction. He has an experience of over 18 years and heads the accounts department.











# Our Technical Strength



Farhan nawaz Assistant Manager (Mechanical) B.Sc Mechatronics Engineering



Shahzaib Shabbir Assistant Manager (Electrical) B.Sc Electrical Engineering



**Taimoor Azhar** Process Engineer B.Sc Chemical Engineering



Maria Aftab **Environmental Scientist** M.Phill Environmental Sciences



Muhammad Abubakr Resident Engineer (Mechanical) B.Sc Mechanical Engineering



Muhammad Ali Resident Engineer (Electrical) B.Sc Electrical Engineering



Neeshay Imran **Environmental Engineer** B.Sc Environmental Engineering



Muhammad Kashif Ayub Design Engineer (Mechanical) B.Sc Mechanical Engineering



Muhammad Usman Ghani Design Engineer (Mechanical) B.Sc Mechanical Engineering B.Sc Environmental Engineering M.Sc Environmental Engineering



Umer Sultan **Environmental Engineer** 



Muhammad Zeeshan Filed Engineer (Environmental)

## Core Areas

### **Environmental**

- Environmental Impact Assessment (EIA)
- Initial Environmental Examination (IEE)
- Cleaner Production Assessment
- Solid Waste Management
- Energy Audits
- Air Quality Monitoring
- Noise Level Monitoring
- Bioremediation and Mitigation

### Water

- Surface Water Quality Modelling
- Water Treatment
- Domestic Wastewater Treatment
- Industrial Wastewater Treatment
- Direct and Indirect Water Reuse
- Treatability Studies
- Water Quality Monitoring
- Plant Automation and Control (SCADA)

## Infrastructure Solutions

- Master Planning
- Water Supply Pipelines
- Waste Distribution
- Sewerage Disposal
- Storm Water Drainage
- Hydrological Studies
- Rainwater Harvesting
- Irrigation Systems
- Pumping Stations
- Remote Sensing
- Geographic Information System (GIS)
- Fire Fighting System
- Topographical Survey
- Structure Design
- Road and Bridges

## **Building Solutions**

- Fire Detection & Suppression System
- Plumbing
- HVAC
- Building Management
- Swimming Pools

## Panel of Experts

#### Dr. Dipanker Sen (Virginia Tech University)

Advisor Wastewater Treatment

Ph.D. Civil Engineering (Virginia Tech University, USA)

#### Dr. Sher Jamal Khan (NUST)

Water & Infrastructure Development Expert

Ph.D. Environmental Engineering & Management (Asian Institute of Technology, THAILAND)

#### Dr. Ishtiaq Hassan

Road and Drainage System Design Expets

Ph.D. Water resource & irrigation Engineering (UET, Taxila- Pakistan)

#### - Rana Munir

Road & Infrastructure Expert

M.Sc. Concrete structures Engineering (Imperial College of Science and Technology London, UK)

#### Asim Tirmzai

Water Treatment Expert

B.Sc Chemical Engineering (University of Engineering & Technology Lahore, Pakistan)

#### Chaudhary Akhtar Ali

**Project Planning Expert** 

B.Sc. Mechanical Engineering (University of Engineering & Technology Lahore, Pakistan)

#### Muhammad Farooq

Project Planning, Road & Infrastructure Expert

B.Sc. Civil Engineering (University of Engineering & Technology Lahore, Pakistan)

#### Tariq Taimoor

**Electrical Expert** 

B.Sc. Electrical Engineering (University of Engineering & Technology Lahore, Pakistan)

#### - Rashid Magbool

Environmental expert

M.Phill Agriculture (Gomal University DIK)

#### Dr. Jalaluddin Qureshi

Drip and Sprinkler irrigation system expert

Ph.D. Groundwater Recharge (University College Gallway, Ireland)

#### Dr. Muhammad Ali

**GIS Specialist** 

Ph.D. Urban Planning (Hokaido University, Japan)

#### **Javeed Cheema**

Water & Wastewater Process Design Expert

M.Sc. Civil Engineering (Asian Institute of Technology, THAILAND)

# Key Projects

#### Nestle, Sheikhupura

Detailed design and engineering of 5500 m3/day effluent treatment plant for high strength industrial wastewater. The scope of work included process and hydraulic engineering, designing of civil, electrical and mechanical works, and automation and control. The plant is designed for fully automatic operation using a state-of-the-art SCADA system with an advanced solid handling using belt filter presses and 25% water recycling/reuse through GE ultrafiltration membranes.

#### Benazir Bhutto International Airport, Islamabad

Detailed design and engineering of 1.5 MIGD effluent treatment plant for airport wastewater. The scope of work included process and hydraulic engineering, designing of electrical and mechanical works, and automation and control. The plant is designed for fully automatic operation using a state-of-the-art SCADA system with 100% water recycling/reuse through an advanced filtration system.

#### Fauji Fresh n Freeze, Sahiwal

Detailed design and engineering of 421 m3/day effluent treatment plant for high strength industrial wastewater water supply network, sewerage network, solids waste management system, and RO reject disposal. The wastewater treatment consists of two-stage anaerobic (UASB) and aerobic (Return Activated Sludge) processes.

#### Peshawar Development Authority / NESPAK

Design and engineering of water treatment plants for Peshawar city and its suburban areas. The scope of work included process and hydraulic engineering, designing of civil, electrical and mechanical works, and automation and control for four different plants including 20 MGD – Jabba Dam, 20 MGD – Bara Dam, 162 MGD – Warsak Dam and 254 MGD – Munda Dam.

#### WASA Faisalabad / Artelia Vista, France

Provided design review, construction management, and site supervision services to Artellia Vista, France for the 10 MGD water treatment plant.

#### Amen Saleh Naji & Al Ghaidah Ministry of Water, Yemen

Provided construction management and top supervision services for sewer network and wastewater treatment









#### Mott McDonalds, Islamabad

Pre-feasibility study for 400 MIGD water pipelines from Indus River to Islamabad City. The study included hydraulic and mechanical design of three DN 2000 pressure mains including transient (Surge) analysis.

#### Nescom, Islamabad

Detailed design and engineering of fire detection and suppression system for NESCOM headquarters in Islamabad. The scope of work included the design of outdoor and indoor fire hydrants, smoke and heat detection systems, and fire pumps.

#### Alhamra Hills & Avenue, Islamabad

Design and engineering of 2 MGD water supply system including hydraulic and mechanical design of the main pipeline and water distribution networks.

#### Quaid-e-Azam Hospital Complex

Detailed design and engineering of 600 m3/day wastewater treatment plant, and fire detection and suppression System.

#### Interloop Faisalabad

Detailed design and engineering of plant piping for dying and washing unit, and fire detection and suppression system for entire 51-acre plant.

#### Engro, Dharki, Sindh

Design review of 10MGD water supply system including pipeline, rising main, intake structure and pumping for Dscon engineering, Pakistan.

#### WASA Faisalabad / Japan Techno, JICA

Provided training to WASA staff for sewer cleaning mechanism in collaboration with Japan Techno (JICA- Project).

#### Paradise Valley Housing Project, Faisalabad

Detailed design and engineering of 200 m3/day package type wastewater treatment plant.

#### Procter & Gamble

3D Modeling of Surf Manufacturing plant for Procter & Gamble including pipe line, structure & equipment modeling.









# Other Projects

### Water

- Water Supply at Defence Housing Authority, Islamabad
- Water Treatment Plant at Makri, Muzaffarabad
- Water Distribution system at Commoner Town Islamabad
- Taunsa Barrage Dewatering System
- Pumping Station at Punjab Industrial Estate
- Pumping Dewatering Station for Terbella, WAPDA
- Indus River Water Supply at Gaddu Barrage
- Water treatment plant and pump system using SCADA at Al- Mansoor International, Oman.
- Storm Water Harvesting System at Unilever Lahore

### Wastewater

- Sewage Treatment Plant at Defence Housing Authority, Karachi.
- 1200 m3/day ETP, Nestle, Kabbirwala.
- Treatability Study at Nestle, Karachi.
- Package WWTP at Metro Cash & Carry Lahore, Karachi, Faisalabad and Islamabad.

## Fire

- Fire detection and suppression system at Canteen Store Department (CSD) Rawalpindi and Sialkot
- Fire Detection & Suppression System at Interloop Faisalabad
- Fire Detection and Suppression system at Amson Pharmaceutical, Rawalpindi.
- Fire Detection System at National Defense Complex (NDC) Islamabad
- Fire Detection System at Kahuta Research Laboratories (KRL) Kahuta
- Fire Suppression System at Defense Science and Technology Organization (DESTO)
- Fire Detection and suppression system at Pakistan Atomic Energy Commission (PAEC), Islamabad.
- Fire Pumps installation at Fatima Fertilizer near Rahim Yar Khan

## Our Collaborations

- Nespak
- Artelia Vista, France
- **Engineering Consultancy Services Punjab (Pvt.) Ltd (ECSP)**
- **Korean Engineering Consultancy Cooperation (KECC)**
- **Green Group of Companies, India**
- **Green Crescent, Abu Dhabi**
- Japan Techno















## Our Clients









































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