



Fields of Specialization

Aerospace

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Agriculture

Agricultural Engineering / Agrology | Agricultural Environment Organic Waste disposal in Rural Areas | Drainage Studies / Surveys | Draining and Irrigation Systems / Networks | Farm Buildings | Farm Machinery and Equipment | Farmland Resources: Surveys and Improvement Works | Food Processing and Storage | Grains and Feeds: Drying, Cleaning, Handling, Processing and Storage | Irrigation | Land Drainage | Nutrient Management | Rural Planning and Development | Water and Soil Conservation Engineering

Building Science

Acoustics | Architecture | Capital Planning | Ergonomics | Fire Protection / Prevention | Indoor Air Quality | Inspections / Investigations | LEED - Leadership in Energy and Environmental Design | Preliminary / Final Design | Repair / Restoration | Residential | Roofing and Waterproofing | Technical Audits | Walls and Cladding | Windows

Chemical Engineering

Desalination | Food Processing | Plastics | Process Design | Synthetic Fibres

Cold Climate Engineering

Building Design for Arctic Conditions | Diesel Power Generation | Ice Core Dams | Ice Road Design | Permafrost Investigations | Petroleum, Oil and Lubricant Storage and Handling | Thermosyphons

Communications / Telecommunications

AM/FM Broadcasting | Data Transmission Systems | Fibre Optics | Program Production Facilities | Terrestrial and Satellite Links | TV and CATV | Wireless Systems

Computer Science

Client / Server | Computational Mechanics | Controls | Database Management | Ergonomics | Internet / Intranet | Process Automation | Robotics | Software Development



Electrical

Alarm and Security Systems | Building Systems | Energy Conservation | Illumination and Lighting
| Motors and Generators | Power Transmission and Distribution | Residential

Energy

Biomass / Wood | Co-Generation | Coal Processing / Transportation | District Heating and Co-
Generation | Electric Power Generation - Hydroelectric | Electric Power Generation - Nuclear |
Electric Power Generation - Thermal | Electric Power Systems Analysis | Energy Conservation |
Oil and Gas Pipelines | Oil and Gas Production / Storage / Distribution | Oil and Gas Refineries /
Processing Plants | Solar Energy | Steam Power Generation | Wind Energy

Energy Geoscience

Coal Bed Methane | Coal Exploration / Mining | Energy Reserves | Petroleum Development |
Petroleum Exploration

Environmental

Air Quality Management | Environmental Assessments | Environmental Litigation Support |
Environmental Site Assessments and Audits | Groundwater Resources / Hydrogeology |
Industrial Hygiene and Safety | Industrial Wastewater Treatment | Laboratory and Treatability
Studies | LEED - Leadership in Energy and Environmental Design | Mould Studies | Noise and
Vibration | Physical Environmental Mapping and Analysis | Record of Site Condition | Risk
Assessment | Solid / Hazardous Waste Management | Surface Water Resources | Underground
Storage Tank Management

Environmental Geoscience

Hydrogeology and Groundwater | Terrain Analysis / Remote Sensing | Waste Management /
Mitigation / Disposal

Fisheries

Fish By-products: Processing | Fish Processing / Storage | Fishery Resources: Evaluation,
Development, Operations, Aquaculture | Fishing Vessels Gear / Equipment | Marine Biology and
Oceanography | Maritime / Harbour Engineering, Trans-shipment Equipment | Monitoring,
Control and Surveillance (MCS) | Naval Architecture and Boat Construction | Remote Sensing



Forensic

Accident Reconstruction | Cladding Failures | Electrical / Mechanical Failures | Fire and Explosions | Investigation and Settlement of Claims | Process Support Facilities | Product Failures and Liability | Structural Failures | Wind and Water Damage

Forestry

Building Materials: Plywood, Lumber, Manufacturing, etc. | Forest Harvesting | Forestry | Forestry Engineering | Pulp / Paper Plants, Products | Pulp, Paper and Fiber Board | Timber Engineering | Timber Grading, Wood Species Identification, Wood Damage Assessment

Geophysics

Mining Geophysics | Seismic Acquisition / Analysis

Geotechnical

Aggregate Exploration and Evaluation | Earth Structures | Foundations | Geohazard Mapping | Laboratory Testing | Site Investigations | Soil and Rock Mechanics | Soil Stabilization

Industrial

Ergonomics | Hydraulic Engineering | Machine Design / Analysis | Manufacturing Facilities | Materials Handling | Materials Storage | Plant Maintenance | Product and Process Design | Prototyping and Product Development | Time Motion Studies | Transportation / Automotive Equipment

Marine and Coastal

Erosion Protection | Marinas | Ports and Terminals | Shore Erosion Processes and Assessment | Underwater Surveys | Waterfront Planning

Materials

Analysis | Corrosion Control and Remediation | Design and Selection | Quality Issues | Specifications and Manuals | Testing and Certification | Welding

Mechanical

Computational Fluid Dynamics | Computer Aided Engineering | Cranes and Derricks | Finite Element Analysis | Fire Protection Systems | Heating, Ventilation, A/C | Machine Design | Plumbing and Piping | Refrigeration | Residential | Software development



Mineral Geoscience

Mineral Exploration | Mineral Reserves | Mining Geology | Rock Mechanics

Mining Engineering

Blasting Control | Iron and Steel Works - Rolling / Casting / Forging / etc. | Metallurgy Extractive - Ferrous Metals | Metallurgy Extractive - Non-Ferrous Metals | Metals / Minerals / Ore Dressing | Non-Ferrous Metals - Fabricating / Rolling / Forging / Casting / Extruding / etc. | Open Pit / Underground Mining

Municipal

Infrastructure Rehabilitation | Residuals Management | Roads and Streets | Stormwater Management | Wastewater Collection and Treatment | Wastewater Management | Water Supply and Treatment

Occupational Health and Safety

Area Classifications - Electrical | Area Classifications - Hazardous | Area Classifications - Industrial | Pre-start Health and Safety Reviews

Petroleum Engineering

Acquisitions and Divestitures | Evaluations | Expert Witness | Exploitation | Feasibility Studies | Reservoir Engineering | Well Test Analysis

Planning

Drainage Studies | Industrial Parks | Land Use | Site Plans | Subdivision Plans | Urban and Rural Design

Pressure Vessels

Design Modifications | Process Piping Design

Project Management

Construction Management | Construction Quality Control | Contract Administration | Management of Design | Procurement Management | Project Control and Risk Management | Related Management Services | Value Engineering

Research

Feasibility Studies | Technology Assessment



Structural - Buildings

Commercial | Foundations | Highrise | Industrial | Inspections and Investigations | Institutional
| Lowrise | Parking Facilities | Restoration and Repair | Seismic Retrofit

Structural - Other

Bridges | Bunkers and Silos | Dams and Locks | Nuclear | Tanks and Shells | Towers | Tunnels

Surveying and Mapping

Aerial Photography: Photogrammetry / Photo Interpretation / Cartography | Construction
Layout Surveys | Geographic Information Systems | Land Surveying / Cadaster | Remote Sensing
/ Satellite Data Interpretation / Imagery | Resource Surveys, Exploration and Planning |
Topographic Surveys

Temporary Works

Excavation Enclosures | Formwork | Lifting and Moving | Scaffolding | Structural Shoring

Transportation

Airports | Highway and Road Safety | Intelligent Transportation Systems | Long Distance Rail |
Pavement Design | Pavement Management Services | Ports and Harbours | Roads and
Highways | Terminals and Service Centres | Traffic Engineering and Control | Transportation
Planning | Urban Public Transit