



Colegio de Ingenieros del Perú
Peruvian Engineers Association



APEC Engineer Agreement

**Engineers Demand in Large Infrastructure
Development Projects**

December 2021



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Engineers Demand in Large Infrastructure Development Projects

Petroleum Field Development Projects

Specialty	Percentage
Petroleum Engineering	28%
Geotechnical Engineering	20%
Mechanical Engineering	16%
Hydraulics Engineering	12%
Industrial Engineering	8%
Civil Engineering	6%
Environmental Engineering	6%
Other Engineering	4%

Source: APEC Engineering Agreement / Project Development /
Statistics provided by country members



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Engineers Demand in Large Infrastructure Development Projects

Road Projects

Specialty	Percentage
Civil Engineering	22%
Construction Engineering (Civil)	13%
Geotechnical Engineering	30%
Industrial Engineering	10%
Environmental Engineering	6%
Mechanical Engineering	4%
Systems Engineering	3%
Other Engineering	2%
Architecture Design	10%
Landscape Architecture	

Source: APEC Engineering Agreement / Project Development /
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Engineers Demand in Large Infrastructure Development Projects

Irrigation Projects

Specialty	Percentage
Civil Engineering	20%
Hydraulics Engineering (Civil)	10%
Construction Engineering (Civil)	5%
Geotechnical Engineering	20%
Agricultural Engineerting	15%
Industrial Engineering	8%
Environmental Engineering	6%
Mechanical Engineering	6%
Systems Engineering	3%
Other Engineering	2%
Architecture Design	5%
Landscape Architecture	

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Engineers Demand in Large Infrastructure Development Projects

Housing Projects

Specialty	Percentage
Civil Engineering	20%
Construction Engineering (Civil)	25%
Geotechnical Engineering	20%
Architecture Design	23%
Landscape Architecture	12%

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Engineers Demand in Large Infrastructure Development Projects

Thermal Power Generation Projects

Specialty	Percentage
Mechanical Engineering	30%
Electrical Engineering	24%
Industrial Engineering	15%
Civil Engineering	12%
Environmental Engineering	6%
Electronics Engineering	5%
Systems Engineering	4%
Other Engineering	4%

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Civil Engineering Practice by Specialty Areas

Práctica de la Ingeniería Civil por Áreas de Especialidad

Area	Percentage
Construction	40%
Structural Design	10%
Geotechnics	12%
Hydraulics	14%
Roads	8%
Other	16%

Source: Chartered Engineers Data Bank - 2020
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Mechanical Engineering Practice by Specialty Areas

Práctica de la Ingeniería Mecánica por Áreas de Especialidad

Area	Percentage
Manufacturing	28%
Mechanical Design	22%
Power Generation	18%
Hydraulics	12%
Renewable Energies	8%
Materials	8%
Other	4%

Source: Chartered Engineers Data Bank - 2020
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Industrial Engineering Practice by Specialty Areas

Práctica de la Ingeniería Industrial por Áreas de Especialidad

Area	Percentage
Operations Management	15%
Logistics	13%
Quality Management	11%
Planning	10%
Financial and Banking	10%
Human Resources	9%
Costs and Budgets	9%
Industrial Safety	8%
Environmental Manage.	8%
Manufacturing, Materials	5%
Other	2%

Source: Chartered Engineers Data Bank - 2020
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