

ECSA Registration for the Private Sector Professional Engineers

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Why register?

- **Peer recognition**
- **Public confidence**
- **Employability and work-winning**
- **International recognition**
- **Membership of VA's**
- **Use of Reserved Names**
- **Statutory Empowerment "Competent Person"**

Who is eligible to register for Pr. Eng.?

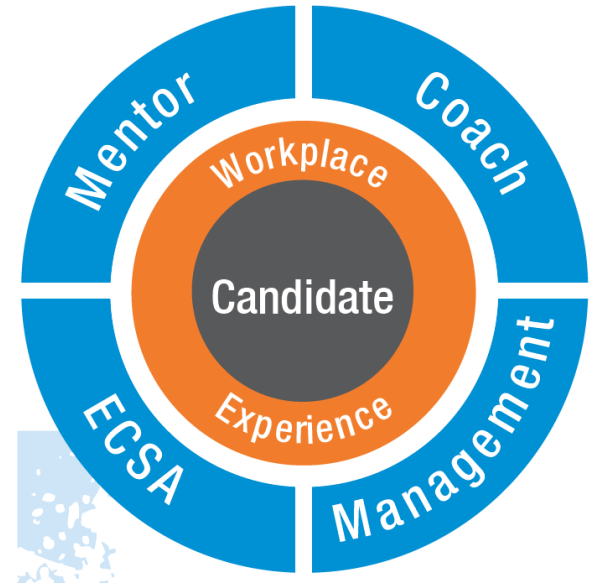
- A recognized 4-year B. Eng. or B.Sc. Eng. Degree
- Washington Accord

UNIVERSITY	LIST A	LIST B	LIST C
University of Cape Town	3.1	-	5.1
University of Durban-Westville	-	4.1	5.2
University of KwaZulu-Natal <small>(formed by the merger of the University of Natal and University of Durban-Westville in 2004)</small>	3.2	-	-
University of Natal	-	4.2	5.3
Nelson Mandela Metropolitan University	3.3	-	-
North-West University <small>(formerly Potchefstroom University)</small>	3.4	-	-
Potchefstroom University for Christian higher Education	-	4.3	5.4
University of Pretoria	3.5	-	5.5
University of Johannesburg <small>(formerly Rand Afrikaans University)</small>	3.6	-	-
Rand Afrikaans University	-	4.4	5.6
University of Stellenbosch	3.7	-	5.7
University of the Witwatersrand	3.8	-	5.8

Document E-20-PE Degrees Accredited as Meeting the Educational Requirement for Registration as a Candidate or Professional Engineer (Rev 30)

How?

- ◆ Register with ECSA as a Candidate Engineer.
- ◆ Work for an employer that gives you work access to a Pr. Eng.
- ◆ Develop a Training Plan.
- ◆ Document your training progressively.
- ◆ Demonstrate competence in terms of ECSA Standards and Procedures system R-02-PE.
- ◆ Undertake Complex Engineering Activities.
- ◆ Complete the application forms.
- ◆ Attend the interviews.



Wait, how complex is complex?

Level Descriptor – Complex Engineering Activities



- ◆ Scope to include entire complex systems or complex subsystems.
- ◆ Multi-disciplinary Context.
- ◆ Develop a Training Plan.
- ◆ Considerable and diverse resources.
- ◆ Interactions with conflicting technical views.
- ◆ Resource constrained.

” Activities include but are not limited to: design; planning; and problem resolution; improvement of materials, components, systems or processes; implementation, manufacture or construction; operations; maintenance; closure or disposal; project management; research, development and commercialisation.”

Outcomes

GROUPS	OUTCOMES
A: Knowledge Based Engineering Problem Solving	1. Define, investigate and analyse engineering problems
	2. Design or develop solutions to engineering problems
	3. Comprehend and apply advanced knowledge
B: Managing Engineering Activities	4. Manage part or all of an engineering activity
	5. Communicate clearly
C: Risk and Impact Mitigation	6. Recognise and address social, cultural and environmental effects
	7. Meet all regulatory requirements including health and safety
D: Act Ethically, Exercising Judgement and Taking Responsibility	8. Conduct engineering activities ethically
	9. Exercise sound judgement
	10. Take responsibility for decision making
E: Professional Development	11. Undertake professional development

Activities

GROUPS	ACTIVITIES
A: Knowledge Based Engineering Problem Solving	Preliminary and detail design of complex projects requiring advanced knowledge.
B: Managing Engineering Activities	General project management + managing a construction or installation contract.
C: Risk and Impact Mitigation	Dealing with communities, ensuring environmental compliance (NEMA) and ensuring safety (OHS Act and Construction Regulations).
D: Act Ethically	Ensure compliance with (relevant) legislation and ECSA Code of Conduct.
D: Exercising Judgement and Taking Responsibility	Make correct engineering decisions using best practice and ensure that your work improves the conditions for the people you are serving.
E: Professional Development	Continuous self learning and professional growth.

Err...!



R2/1A



Professional Engineers

Covers

- Acceptable Practical Training
- Discipline Specific Guidelines
- Engineering work for CE's
- Training under C&U
- Registration Process

POLICY STATEMENT R2/1A

**Acceptable Engineering Work for
Candidate Engineers
for Registration as Professional Engineers**

Date of Issue: 9/9/2004

E C S A

ENGINEERING COUNCIL OF SOUTH AFRICA

Private Bag X 691 • BRUMA • 2026
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Tel: (011) 607-9500 • Fax: (011) 622-9295
E-mail: engineer@ecsa.co.za
Website: www.ecsa.co.za

- **Acceptable Practical Training**
 - Investigation
 - Solution
 - Execution/Implementation
 - Responsibility

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- Acceptable Practical Training
- **Discipline Specific Guidelines**
 - Aeronautical
 - Agricultural
 - Chemical
 - Civil
 - Electrical/Electronic
 - Industrial
 - Mechanical
 - Metallurgical & Mining

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- Acceptable Practical Training
- Discipline Specific Guidelines
- **Engineering work for CE's**
 - Nature of the practical training
 - Standard of the practical training
 - Variety of the practical training
 - Recognition of advanced study
 - Specialisation
 - Lectureship
 - Training Outside the country

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- **Registration Process**

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YPF

Young Professionals Forum

Questions?

Annual CESA YPF Sponsors



Thank You

Questions and Answer Session