

RAEng Membership Selection Panels

1 Civil, Construction & Environmental

- including aspects of civil and structural engineering; construction materials; earthquakes; wind & fire engineering; building engineering physics; construction management; numerical modelling; environmental engineering; water resources and flooding; offshore and coastal engineering; hydraulics; climate change and sustainability; waste management; geotechnical engineering; geomatics/surveying.

2 Materials & Mining

- including metallurgy; metal forming; corrosion; failure analysis; structural integrity; non-destructive testing; inspection technologies; failure prevention; fabrication and repair technologies; welding and joining technologies; discovery & development of mineral resources; extraction & processing of minerals; mining engineering; materials performance; materials research; plastics and composites; structural materials (excluding materials specifically covered elsewhere).

3 Chemical & Process

- including all aspects of chemical and process engineering; aspects of fuel technology; oil; coal and gas technologies; petroleum geoscience; carbon; carbon sequestration; clean technology; combustion; catalysis; particulates; food processing; fermentation processes; pharmaceutical engineering; biotechnological processes.

4 Aerospace

- including all aspects of aeronautical engineering and aerospace manufacturing; turbomachinery and aerothermal engineering, avionics; radar systems; antennae; satellite systems; autonomous systems; aspects of systems engineering; airlines; materials for aerospace.

5 Transport & Mechanical

- aspects of mechanical engineering including automotive; rail and marine engineering; transportation infrastructure; engines; turbomachinery; mechatronics; acoustics and vibrations; ultrasonics; heat & thermodynamics; fluid dynamics.

6 Manufacturing & Design

- including manufacturing management and manufacturing process innovation; manufacturing business improvement and re-engineering; CAD/CAM; robotics for manufacturing; engineering design.

7 Electrical & Electronic

- including electrical, electronic and control engineering; design for electronics; aspects of nanotechnology and semiconductor engineering; lasers; optoelectronics; photonics; microwave engineering; instrumentation; display technology; solid state electronics.

8 Energy & Power

- including energy technologies; including electric power and energy systems engineering; nuclear and renewable energy generation; energy infrastructure; management of energy and energy resources for generation, storage and transmission; distribution and conversion of electric energy and power; electricity supply and energy conservation; hydrogen power; fuel cells.

9 Medical & Bioengineering

- including all aspects of medical and biomedical engineering; orthotics; prosthetics; ultrasound for medicine; medical scanning and imaging; drug delivery; biomedical materials; tissue engineering; medical devices; medical robotics and computer assisted surgery.

10 Computing & Communications

- including computational and software engineering; informatics; web and data science; telecommunications; mobile telephony; broadband; wireless spectrum; signal processing; television, film and broadcasting; computer and video games; special effects.

11 Special (including engineering management and multi-disciplinary)

- new, emerging or multi-disciplinary areas of engineering; leadership and management of engineering business; engineering project management; business improvement and reengineering; also including engineers working in government and the armed services; engineers who have made outstanding contributions to engineering law, education or in public engagement and all other specialist engineering sectors (e.g. agricultural engineering) not covered elsewhere.