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## Human Resources

## Recruitment Handbook

**SELECTION CRITERIA**

Use this form to define the selection criteria for an academic position at the University of Adelaide.

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| **POSITION DETAILS** |  |
| **School/Branch:** | Electrical and Mechanical Engineering |
| **Classification** | Level A |

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| **ESSENTIAL MINIMUM CRITERIA** |
| 1. A PhD in Mechanical Engineering or a closely related discipline. 2. Knowledge or experience in planning, designing, and safely conduct experiments and optical diagnostic measurements of turbulent reacting flows, notably hydrogen-based flames 3. Knowledge or experience in designing, commissioning, and safely conduct testing of laboratory-scale combustion systems, notably hydrogen-based furnaces. 4. Experience in using combustion kinetic software such as Chemkin-PRO to aid in understanding of the collected experimental data 5. Well-developed communication skills and an ability to prepare high-quality scientific publications and to present engagingly to different audiences 6. Ability to work in a team, interacting effectively with colleagues. 7. Commitment to the principles of equity, diversity and inclusion, and an ability to contribute to the diversity of the School community. |

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| **DESIRED CHARACTERISTICS** |
| 1. Knowledge or experience in hydrogen combustion technologies, hydrogen and solid fuel handling, and/or MILD/oxy-fuel combustion systems. 2. Knowledge or experience in optical diagnostic techniques including but not limited to absorption, laser induced fluorescence, and planar Mie scattering techniques 3. An ability to work in close collaboration with industrial research partners. 4. A track record of published research papers in high-ranking journals. 5. A self-motivated individual who can work independently and in a team environment on technically challenging problems. |
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| **APPROVALS – HEAD OF SCHOOL/BRANCH MANAGER** |
| Head of School / Branch Manager  Name:…………………………………………………..Signature:………………………………………………. Date:……………………………….. |

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| **ACKNOWLEDGEMENT OF INCUMBENT** |
| I have read and understood the requirements of the position  Name:*(please print)………………………………………….*Signature:………………………………………….Date:……………………………….. |

**SELECTION CRITERIA**

Use this form to define the selection criteria for an academic position at the University of Adelaide.

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| **POSITION DETAILS** |  |
| **School/Branch:** | Electrical and Mechanical Engineering - |
| **Classification** | Level B |

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| **ESSENTIAL MINIMUM CRITERIA** |
| 1. A PhD in Mechanical Engineering or a closely related discipline with postdoctoral research experience in an academic or industrial environment. 2. Demonstrated ability to undertake research in the area of low-emission hydrogen combustion technologies, and in planning, designing, and safely conduct experiments and optical diagnostic measurements of turbulent reacting flows, notably hydrogen-based flames 3. Demonstrated ability in designing, commissioning, and safely conduct testing of laboratory-scale combustion systems, notably hydrogen-based furnaces. 4. Demonstrated experience in using combustion kinetic software such as Chemkin-PRO to aid in understanding of the collected experimental data 5. Proven skills in technical writing for high quality scientific journals and verbal communication skills in academia. 6. Demonstrated ability to work in a team, interacting effectively with colleagues and external collaborators from academia, industry and/or government. 7. Commitment to the principles of equity, diversity and inclusion, and an ability to contribute to the diversity of the school community. |

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| **DESIRED CHARACTERISTICS** |
| 1. Experience and a track record of publishing in relation to hydrogen combustion (flames, burner, systems) and/or in optical diagnostic for combustion systems. 2. Experience in MILD/oxy-combustion systems, hydrogen and solid fuels handling. 3. Experience in optical diagnostic techniques including but not limited to absorption, laser induced fluorescence, and planar Mie scattering techniques 4. A strong track record of published research papers in high-ranking journals. 5. A self-motivated individual who can work independently and in a team environment on technically challenging problems. |
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| **APPROVALS – HEAD OF SCHOOL/BRANCH MANAGER** |
| Head of School / Branch Manager  Name:…………………………………………………..Signature:………………………………………………. Date:……………………………….. |

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| **ACKNOWLEDGEMENT OF INCUMBENT** |
| I have read and understood the requirements of the position  Name:*(please print)………………………………………….*Signature:………………………………………….Date:……………………………….. |