

**Asst Prof (Tenure Track)/Assc Prof(Tenure  
Track/Tenured) in Wide Band Gap Growth, Device Design  
Nanyang Technological University**

Direct Link: <https://www.AcademicKeys.com/r?job=243492>

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Posted Aug. 22, 2024, set to expire May 6, 2025

<b>Job Title</b>	Asst Prof (Tenure Track)/Assc Prof(Tenure Track/Tenured) in Wide Band Gap Growth, Device Design
<b>Department</b>	School of Electrical and Electronic Engineering
<b>Institution</b>	Nanyang Technological University Singapore, , Singapore
<b>Date Posted</b>	Aug. 22, 2024
<b>Application Deadline</b>	Open until filled
<b>Position Start Date</b>	Aug. 22, 2024
<b>Job Categories</b>	Assistant Professor Associate Professor
<b>Academic Field(s)</b>	Electrical and/or Electronics
<b>Job Website</b>	<a href="https://ntu.wd3.myworkdayjobs.com/Careers/job/NTU-Main-Campus-Singapore/Assistant-Professor--Associate-Professor--Tenure-track--in--High-frequency-III-Nitride-Growth--Device-Design-and-Fabrication-_R00014516">https://ntu.wd3.myworkdayjobs.com/Careers/job/NTU-Main-Campus-Singapore/Assistant-Professor--Associate-Professor--Tenure-track--in--High-frequency-III-Nitride-Growth--Device-Design-and-Fabrication-_R00014516</a>

**Apply By Email**

**Job Description**

**Nanyang Technological University (NTU)** invites applications for a position of Assistant Professor (Tenure Track)/Associate Professor (Tenure Track/Tenured) in “Wide Band Gap Growth, Device design, Fabrication and Characterisation”.

We are seeking a candidate who will develop, lead and sustain research of an international standard in “Wide Band Gap Growth, Device design, Fabrication and Characterisation”. The candidate should

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possess strong experimental and theoretical expertise in Wide Band Gap (e.g. GaN, SiC, Ga<sub>2</sub>O<sub>3</sub>, Diamond etc.) growth, device design, fabrication and characterisation for novel devices (e.g. Vertical FETs, HEMTs, MISHEMTs, FinFETs etc.) for high-power and high-frequency applications.

This position will be held at the **School of Electrical and Electronic Engineering (EEE)**. Areas and priorities that we wish to develop and support through this appointment include:

- Wide Band Gap epitaxial growth on various substrates (Si, SiC, diamond etc.).
- Wide Band Gap material characterisation techniques (e.g. Hall, XRD, PL etc).
- Design of advanced Wide Band Gap structures particularly for high-power and high-frequency applications.
- Semiconductor wafer fabrication processes including III-V compound semiconductor and/or CMOS-compatible wafer fabrication techniques.
- Electrical characterisation of devices including DC and RF techniques (e.g. semiconductor parameter analyser, pulsed I-V, signal and large signal RF measurements etc.), and reliability.

### Responsibilities

- Develop and lead an innovative research programme of international quality.
- Publish high quality papers in reputable peer-reviewed journals.
- Secure competitive research grants.
- Give talks at international conferences and supervise research personnel.
- Contribute to teaching and course development at the undergraduate and postgraduate levels.
- Supervise undergraduate and graduate students undertaking research projects.
- Undertake administrative and/or leadership roles.
- Contribute to other service-related activities assigned by School and University.

### Requirements

#### *Knowledge and Qualifications*

#### Essential:

- PhD in Wide Band Gap or a related discipline
- Extensive knowledge of current research within the fields of Wide Band Gap epitaxial growth, device design, fabrication and characterisation.
- Evidence of a developing international reputation in this field of research, for example

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fellowships, awards, invited presentations at international conferences, journal editorships or otherwise.

- Established track record of academic publications of international quality.
- Proven track record of securing funding as Co-I or lead investigator.

**Desirable:**

- Membership of relevant discipline or professional body/learned society.

**Skills**

**Essential:**

- Ability and drive to develop project activities in one or more of the fields detailed above.
- Excellent communication and presentation skills, both oral and written.
- Excellent interpersonal skills, including the ability to enthuse students.
- Time/project/budget management skills.
- Self-motivation and ability to work independently and as part of a team.
- Ability to secure research grant funding and initiate new projects; lead a research team and develop an international research profile.
- Ability to work in collaboration with colleagues.

**Desirable**

- Ability to take on a leadership role and motivate students.
- Ability to accept collegiate responsibilities and act accordingly.
- Significant research leadership and facilitation skills.
- Demonstrable ability to provide strategic contribution at Subject or School level.

***Experience***

**Essential:**

- Strong track record of relevant research and broader academic experience.
- Experience of successful teaching, tutoring and mentoring of research students and undergraduate students.

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- Experience as PI or key contributor on external research grants.
- Strong and growing reputation for research leadership in an area which will broaden and strengthen the Institute's research activities.
- Experience in leading successful research grant applications, collaborations and in managing projects.
- A strong track record of gaining research funding.
- Significant broad teaching experience at undergraduate and postgraduate level.

**Desirable:**

- Experience in curriculum development, marking and assessment.
- Experience of supervision of higher degrees (PhD).
- Experience in cross-disciplinary research initiatives, and international/industrial collaborations.

**Application**

Applicants are invited to submit their applications (cover letter, CV, research and teaching statements, and citation report, where applicable) through the NTU career portal.

Review of applications and shortlisting of applicants will be carried out on an on-going basis until the position is filled. Only shortlisted candidates will be notified

**Contact Information**

Please reference Academickeys in your cover letter when  
applying for or inquiring about this job announcement.

**Contact**

Singapore