

UNNC – SIAT Doctoral Training Partnership

It's essential that you have contacted the UNNC and SIAT supervisors of the PhD topics (below) before submitting an application.

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Potential PhD topics

PhD topic	Additive manufacturing and its application in the field of medicine
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SIAT Supervisor	_____
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UNNC Supervisor(s)	_____
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Short introduction &
description of PhD project

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SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	Biomaterials by Additive manufacturing
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	<p style="text-align: right;">Mg Mn based 3D</p> <p>printing biomaterials</p>
Contact points	_____
PhD topic	Combining Deep Learning and Ontology Reasoning for Medical Image Semantic Segmentation
SIAT Supervisor	_____
UNNC Supervisor(s)	_____

Short introduction & description of PhD project	
Contact points	<hr/> <hr/>
PhD topic	Computer-Aided Drug Design Based on Machine Learning
SIAT Supervisor	<hr/>
UNNC Supervisor(s)	<hr/>
Short introduction & description of PhD project	

Contact points	_____
PhD topic	Deep learning-based method for phenotype prediction with multi-modal features and interaction detection
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	Deep Multimodal Representation Learning for Mental Health Diagnosis
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	

Contact points

PhD topic

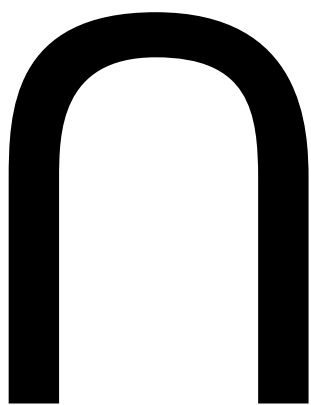
Design of high performance low dielectric polymer composites for integrated circuit pc

Contact points	_____
PhD topic	Developing ultrasensitive diagnostics by combining directed evolution and surface plasmon resonance
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	Development, evaluation, and clinical trials of biomaterials & medical devices
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____



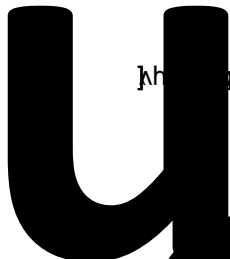
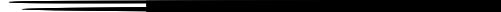
Short introduction & description of PhD project

Contact points

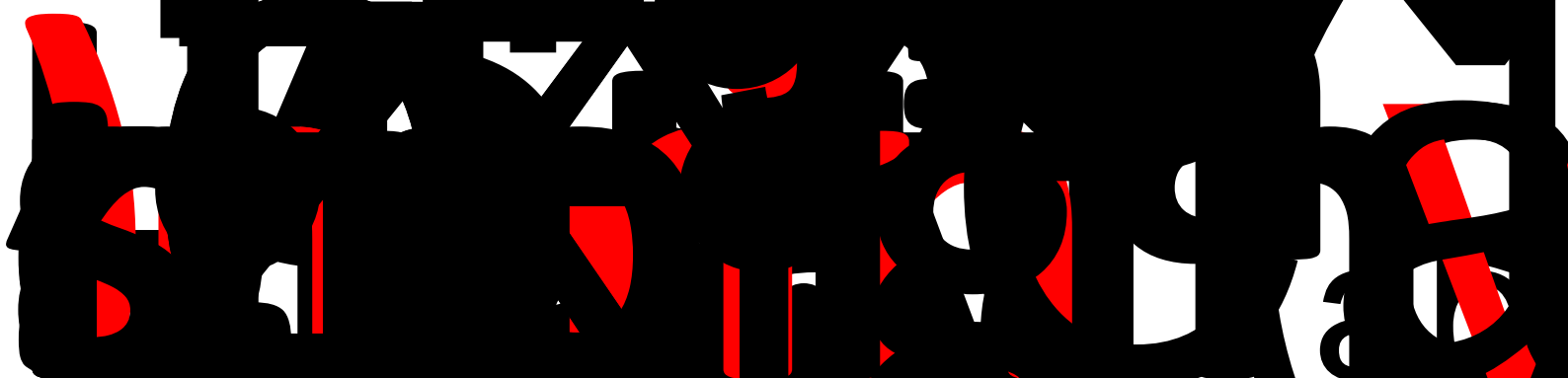


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Contact points

PhD topic Image-guided Radiation Therapy based on Machine Learning

SIAT Supervisor

UNNC Supervisor(s)

Short introduction & description of PhD project

Contact points

PhD topic Impact of Expectation Bias on Results of Randomized Clinical Trials

SIAT Supervisor

UNNC Supervisor(s)

Short introduction & description of PhD project

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SIAT Supervisor

UNNC Supervisor(s)

**Short introduction &
description of PhD project**

SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	Magnetolectric stimulation assisted metal-organic frameworks engineered hydrogels in treating bone injury repair
SIAT Supervisor	_____
UNNC Supervisor(s)	_____ _____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	Medical Image Processing and Artificial Intelligence
SIAT Supervisor	_____

UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	Methods for analyzing population level single cell genomics data
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	Modelling the screen and verification of biomarkers in building the forewarning model for intelligent assistant diagnosis of mental disease including depressive disorder
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	

Contact points

PhD topic

Multi-agent decision making based on action recognition and intention prediction in future "intelligent space"

SIAT Supervisor

UNNC Supervisor(s)

Short introduction & description of PhD project

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Contact points

PhD topic

One-step-ahead: Accurate Viral Mutation Prediction for Early Preparedness of Government Policies and Pharmaceuticals

SIAT Supervisor

UNNC Supervisor(s)

Short introduction & description of PhD project

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Contact points

SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
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PhD topic	Quantitative optical imaging of physiological dynamics
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	Robot assisted automatic preparation of functional materials
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	

Contact points	_____
PhD topic	The Investigation of Wearable Sensor for the Simultaneous Detection of Multiple Pulse Wave Velocities and Its Clinical Application
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	Thermoelectric-based thermal management design for lithium-ion battery
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	Ultrasound-mediated biofilm expression and application
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	

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PhD topic	Understanding altered neural information processing under diseased conditions
SIAT Supervisor	<hr/>
UNNC Supervisor(s)	<hr/>
Short introduction & description of PhD project	

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PhD topic	Vibration and sound radiation analysis of boomer sound source in deep water
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	Wearable RF sensor /biosensor and Artificial intelligence for health management
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	A Novel Dynamic Body Weight Support Overground Walker based on Brain Computer Interface Powered Body Movement Recognition and Track Enabling Natural Gait training
SIAT Supervisor	_____

UNNC Supervisor(s)	_____
Short introduction & description of PhD project	
Contact points	_____
PhD topic	A synthetic biology approach using engineered bacteria to mitigate environmental pollution
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	

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PhD topic **Advanced energy storage materials and devices**

SIAT Supervisor

UNNC Supervisor(s)

**Short introduction &
description of PhD project**

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PHD



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description of PhD project

Contact points

PhD topic

Combinatorial Optimization for Bioinformatics Problems using Graph Neural Networks

SIAT Supervisor

UNNC Supervisor(s)

Short introduction

Contact points

PhD topic

High adaptability and reliability of wearable device systems in Internet of medical Things dealing with the extremes of changing physical conditions and environment in special applications

SIAT Supervisor

UNNC Supervisor(s)

Short introduction & description of PhD project

Contact points

PhD topic

Metallic matrix composite materials in advanced electronics



Contact points	_____
PhD topic	Optimal design methods of electric devices based on artificial intelligence
SIAT Supervisor	_____
UNNC Supervisor(s)	_____ _____
Short introduction & description of PhD project	
Contact points	_____
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SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	

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