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
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	B

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SIAT Supervisor	_____
UNNC Supervisor(s)	D H
Short introduction & description of PhD project	A I A
Contact points	I D H _____
PhD topic	**Biomaterials by Additive manufacturing**
SIAT Supervisor	_____
UNNC Supervisor(s)	_____

Short introduction & description of PhD project	B
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	printing biomaterials

Contact points	I D _____ _____
PhD topic	**Combining Deep Learning and Ontology Reasoning for Medical Image Semantic Segmentation**
SIAT Supervisor	_____
UNNC Supervisor(s)	D H D

Short introduction & description of PhD project	G AI A I C
Contact points	I D H D _____
PhD topic	**Computer-Aided Drug Design Based on Machine Learning**
SIAT Supervisor	D_____
UNNC Supervisor(s)	D_____
Short introduction & description of PhD project	F C A I

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Contact points	I D D
PhD topic	**Deep learning-based method for phenotype prediction with multi-modal features and interaction detection**
SIAT Supervisor	D
UNNC Supervisor(s)	D
Short introduction & description of PhD project	C HD G A
Contact points	I D D
PhD topic	**Deep Multimodal Representation Learning for Mental Health Diagnosis**
SIAT Supervisor	D
UNNC Supervisor(s)	B
Short introduction & description of PhD project	ADHD A D
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Contact points   I   A
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PhD topic	**Developing ultrasensitive diagnostics by combining directed evolution and surface plasmon resonance**
SIAT Supervisor	D
UNNC Supervisor(s)	D
Short introduction & description of PhD project	

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PhD topic	Fiber-optic sensors for soft robots and stretchable electronics
SIAT Supervisor	_____
UNNC Supervisor(s)	D
Short introduction & description of PhD project	E
Contact points	I
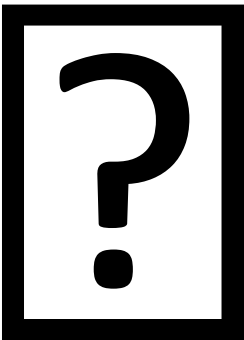
Contact points	I		C	_____	D
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PhD topic	**Image-guided Radiation Therapy based on Machine Learning**
SIAT Supervisor	_____
UNNC Supervisor(s)	H
Short introduction & description of PhD project	I G
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PhD topic	**Impact of Expectation Bias on Results of Randomized Clinical Trials**
SIAT Supervisor	A G
UNNC Supervisor(s)	D _____
Short introduction & description of PhD project	E

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SIAT Supervisor   _____G___

UNNC Supervisor(s)   D_____

Short introduction &   E
description of PhD project

SIAT Supervisor	_____
UNNC Supervisor(s)	_____H___
Short introduction & description of PhD project	I I I
Contact points	I _____ H _____H_____

| **PhD topic**	**Magnetoelectric stimulation assisted metal-organic frameworks engineered hydrogels in treating bone injury repair**
SIAT Supervisor	_____B_____
UNNC Supervisor(s)	_____D_____ D_____H_____

Short introduction & description of PhD project	C
	
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Contact points	I B _____ D D_____ _____ __

PhD topic	**Medical Image Processing and Artificial Intelligence**
SIAT Supervisor	_____H___

| UNNC Supervisor(s)	_____H_
Short introduction & description of PhD project	A
Contact points	I H _____ H _____H_____
PhD topic	**Methods for analyzing population level single cell genomics data**
SIAT Supervisor	D H_____
UNNC Supervisor(s)	D_____
Short introduction & description of PhD project	I I C
Contact points	I D H _____ D _____
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)	D_____H_____
Short introduction & description of PhD project	H C IA

Contact points	I	D	H
	H		HA G _____
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PhD topic	**Multi-agent decision making based on action recognition and intention prediction in future "intelligent space"**
SIAT Supervisor	_____
UNNC Supervisor(s)	D_____
Short introduction & description of PhD project	⬜

Contact points I F

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

SIAT Supervisor

UNNC Supervisor(s) B

Short introduction & I C ID
description of PhD project A C A
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Contact points I

SIAT Supervisor	C
UNNC Supervisor(s)	F

Short introduction & description of PhD project	A
	
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Contact points	I D F F D C

PhD topic	**Quantitative optical imaging of physiological dynamics**
SIAT Supervisor	B
UNNC Supervisor(s)	

Short introduction & description of PhD project	D I A
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	    B
	
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Contact points	I B

PhD topic	**Robot assisted automatic preparation of functional materials**
SIAT Supervisor	H HA
UNNC Supervisor(s)	

Short introduction & description of PhD project	D I
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	            F I G FIG
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Contact points	I H HA _____
PhD topic	**The Investigation of Wearable Sensor for the Simultaneous Detection of Multiple Pulse Wave Velocities and Its Clinical Application**
SIAT Supervisor	D_____
UNNC Supervisor(s)	D_____

Short introduction & description of PhD project	C I
	
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Contact points	I D _____ D _____
PhD topic	**Thermoelectric-based thermal management design for lithium-ion battery**
SIAT Supervisor	_____
UNNC Supervisor(s)	_____
Short introduction & description of PhD project	 D
Contact points	I D _____ D _____
PhD topic	**Ultrasound-mediated biofilm expression and application**
SIAT Supervisor	_____F_____
UNNC Supervisor(s)	_____E_____
Short introduction & description of PhD project	B I

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Contact points	I F _____ E _____
PhD topic	**Understanding altered neural information processing under diseased conditions**
SIAT Supervisor	_____
UNNC Supervisor(s)	D H_____

Short introduction & description of PhD project	
	
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Contact points	I D D
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PhD topic	**Vibration and sound radiation analysis of boomer sound source in deep water**
SIAT Supervisor	H
UNNC Supervisor(s)	D

Short introduction & description of PhD project	B
	
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Contact points	I H

PhD topic	**Wearable RF sensor /biosensor and Artificial intelligence for health management**
SIAT Supervisor	
UNNC Supervisor(s)	D D C

Short introduction & description of PhD project	A
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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)	D
Short introduction & description of PhD project	B C I B C B B I C B I B F D E
Contact points	I D
PhD topic	**A synthetic biology approach using engineered bacteria to mitigate environmental pollution**
SIAT Supervisor	C
UNNC Supervisor(s)	H
Short introduction & description of PhD project	I H D C

Contact points I   C _____

H   H _____

SIAT Supervisor   H   C

UNNC Supervisor(s)   D

Short introduction &   A
description of PhD project

description of PhD project

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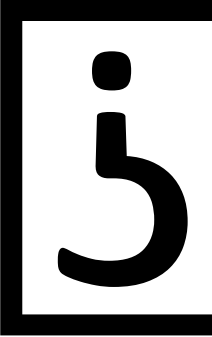
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PhD topic	**Combinatorial Optimization for Bioinformatics Problems using Graph Neural Networks**

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SIAT Supervisor	C
UNNC Supervisor(s)	B

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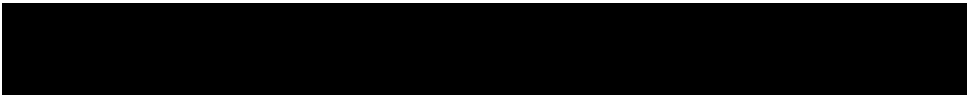
| Contact points | I | | | D B | _____ |
| | | D | _____ | | |

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<tr><td style="background:yellow">PhD topic</td><td style="background:yellow">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</td></tr>
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UNNC Supervisor(s) _____ B

Short introduction & description of PhD project

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| Contact points | I | | BAI |
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	AI C C I C
Contact points	I D H G ___ _____ I _____
PhD topic	**Optimal design methods of electric devices based on artificial intelligence**
SIAT Supervisor	_____F_
UNNC Supervisor(s)	D_____ D_____
Short introduction & description of PhD project	 H
Contact points	I F _____ D _____
Bing sPhD topic	**Video based online abnormal object recognition in grid scene**
SIAT Supervisor	_____
UNNC Supervisor(s)	_____D_____E_
Short introduction & description of PhD project	A AI A I

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Contact points	I D E D_____ H _____