

NCU Taiwan	Summer 2016			
RESEARCH PROJECTS				
DEPARTMENT	PROFESSOR	FIELD OF RESEARCH	EMAIL	LAB TIME
Mathematics	Feng-Nan Hwang	Parallel and Scientific Computing	hwangf@math.ncu.edu.tw	Anytime
Department of Chemical and Materials Engineering	Wen-Yih Chen	Biosensor	wychen@ncu.edu.tw	Anytime
Engineering	Min-Chun Pan	Medical Device Design, Biomedical Optics,	pan_minc@cc.ncu.edu.tw	Anytime
Graduate Institute of Learning and Instruction	Eric Zhi Feng Liu	E-Learning	totem.ncu@gmail.com	7/11-7/25
Department of Chemistry	Peter Po-Jen Chu	Advanced Energy Materials Chemistry	ppicu@gmail.com	Anytime
Department of Chemistry	Peter Po-Jen Chu	Advanced Lithium Battery, Fuel Cells, Solar Cells, Energy Storage Devices, Advanced Energy Material Chemistry	ppicu@gmail.com	Anytime
Biochemical Engineering Laboratory	Shu, Chin-Hang	Bioenergy, Microbial Fermentation, Health Care, Green Technology	chinshu@ncu.edu.tw	Anytime
Department of Civil Engineering	Chu, Chia-Ren	Wind Engineering	crchu@cc.ncu.edu.tw	7/1-8/31
Mechanical Engineering	Yu-Ren, Wu	Design of Precision Machinery Transmission	yurenwu@ncu.edu.tw	Anytime
Center for Bridge Engineering Research	Chung-Yue Wang		cywang@cc.ncu.edu.tw	Anytime
Department of Communication Engineering	Yih-Min Chen	Software-Defined Radio	ymchen@ce.ncu.edu.tw	7/11-7/22

Department of Civil Engineering	Chien-Cheng Chou	Engineering Data Mining, Building Information Modeling	ccchou@ncu.edu.tw	Late July-early August
Department of Optics and Photonics	Chen, Chii-Chang	Photonic Crystals, GaN-Based Micro-Optics, Passive Components for Fiber-Optic Communications, Integrated Optics	trich@ncu.edu.tw	
Department of Optics and Photonics	Lai, Kun-Yu	Growth and Fabrication of III-nitride optoelectronic devices: LEDs, Solar Cells,	kylai@dop.ncu.edu.tw	
Department of Optics and Photonics	Yang, Tsung-Hsun	Bio-Chip, Optical MEMS, Color Sciences, Nonlinear Dynamics	thyang@dop.ncu.edu.tw	
Department of Optics and Photonics	Chen, Yen-Hung	Nonlinear Optics, Integrated Waveguide Laser Devices, Integrated Microchip Solid-		
		Quasi-Phase-Matching Crystals (nonlinear photonic crystals), Ion Optics	yhchen@dop.ncu.edu.tw	
Department of Electrical Engineering		VLSI Design for Wireless Communication and Digital Signal Processing Algorithm Development for Wireless		
		Communication Digital Baseband	pytsai@ee.ncu.edu.tw	
Department of Earth Sciences	How-Wei Che	Seismic and EM Wave Modeling and Imaging with Application from Near-Surface to Deep Structure and Earthquake Studies	hwchen@ncu.edu.tw	
Department of Physics	Meng-Fan Luo	Nano-casle Physics Laboratory, Surface Science, Nano-scale Physics	mfl28@phy.ncu.edu.tw	
Department of Physics	W. H. Li	Magnetic Superconductor Laboratory	whli@phy.ncu.edu.tw	
Department of Physics	Chen, Yu-Jung	Photoprocessing & Spectroscopy Laboratory, Atomic and Molecular Spectroscopy, Photoprocessing at Low		

		Astrochemistry, Astrobiology,	asperchen@phy.ncu.edu.tw	
Department of Chemistry	Shieh, Fa-Kuen	Biochemistry, Enzyme Kinetics, Bio-Conjugation, Drug Delivery, Porous	fshieh@cc.ncu.edu.tw	
Department of Computer Science and Information Engineering		Multi-media Information Networking Lab-Learning Systems, Video Processing, Interactive Multimedia & Music	timothykshih@gmail.com	
Center for Space and Remote Sensing Research	Tsai, Fuan	Geocomputing Laboratory, Remote Sensing, Image Analysis, Geoinformatics, Scientific Visualization	ftsai@csrsr.ncu.edu.tw	
Center for Space and Remote Sensing Research	Tang-Huang Lin	Environmental Remote Sensing Laboratory, Remote Sensing of Environment, Satellite Remote Sensing, Disaster Monitoring,		
		Atmospheric Radiation	thlin@csrse.ncu.edu.tw	
Graduate Institute of Environmental Engineering		The primary research thrust in my laboratory revolves around the fate and transport of chemical contaminants in		
		and engineered systems, with particular emphases on determining how microbes interact with contaminants at the cellular		
		(or molecular) level and evaluating the consequences of these interactions at the ecosystem level. Understanding the		
		fundamental biogeochemical cycling of contaminants in aquatic and terrestrial settings will allow us not only to better		
		assess and minimize hazards associated with environmental pollution, but also to more accurately predict effects		

		of environmental perturbations. Ultimately, the information obtained from these studies can be applied to the		
		of novel analytical tools and sounder remediation strategies. Currently there are three main focus areas in the lab:		
		1) the anaerobic biogeochemistry of toxic metals; 2) the microbial toxicity of novel engineered nano-particles; and (3)		
		the uptake of contaminants from soils by crops. Other research interests include: (1) bioremediation of hydrocarbons	chuching@ncu.edu.tw	
Graduate Institute of Systems Biology of Bioinformatics	Chien-Sheng Chen	High through-put biosensing lab, Nanobiosensing technology, Proteome microarray	cchen103@gmail.com	
Department of Atmospheric Sciences	Kuo-Ying Wang	Atmospheric chemistry model lab, Atmospheric Chemistry, Environmental	kuoying@mail.atm.ncu.edu.tw	
Department of Communication Engineering	Chih-Lin Hu	Network Computing, Mobile Computing, Pervasive Computing, Consumer Communications & Networking (Digital		
		Internet Technology, Broadcast Information System	clhu@ce.ncu.edu.tw	
Department of Chemical and Material Engineering	Akon Higuchi	Biomedical Engineering Lab Stem cell culture and differentiation, Reprogramming of cells into induced pluripotent stem cells		
		(iPS cells), Biomedical materials, Purification of stem cells.	higuchi@ncu.edu.tw	
Department of Chemical and Material Engineering	Bor Kae Chang	Porous material lab, Metal-organic frameworks, graphene and carbon	BKChang@ncu.edu.tw	

Department of Chemical and Material Engineering	Albert T. Wu	Electronic thin film lab Advanced packaging and photovoltaic cell	atwu@ncu.edu.tw	
Graduate Institute of Industrial Management	Chi-Tai Wang	Supply chain management/sustainable supply chain, Sustainable development, Operations research and applications	ctwang@mgt.ncu.edu.tw	
Department of Mechanical Engineering	Ting-Tung Li	Si Thin Film Solar and Process, Semiconductor 3DIC Process Integration, IC and Solar Equipments, Nano Technology, MOCVD heater key components design and simulation	tomili@ncu.edu.tw	
Department of Mechanical Engineering	Jeng-Rong Ho	Computational Heat Transfer and Fluid Dynamics, Laser Fabrication and Material Processing, Fabrication of Polymeric Electronics and Optoelectronics (Laboratory of Laser Applications and Material Processing, LAMP)	jrho@ncu.edu.tw	
Department of Life Sciences	Shir-Ly Huang	Proteomics, Microbial Biochemistry, Biomarkers and protein drug discovery		
		http://www.ncu.edu.tw/~ls/nculs/teacher_slhuang.php	slhuang@cc.ncu.edu.tw	
Department of Chemistry	Jia-Lin Wang	Director of Center of Environmental Safety and Occupational Health	cwang@cc.ncu.edu.tw	
Graduate Institute of Astronomy	Chow-Choong, Ngeow	Distance Scale and Cosmology, Dark Energy Survey and Data Management, Cepheid variables, Supernova and accelerating universe, Stellar physics and pulsations, variable stars, Astro-statistics, Data analysis, Galaxies clustering and angular power spectrum.	cngeow@astro.ncu.edu.tw	
Department of Communication Engineering	Chih-Lin Hu	Mobile and Pervasive Computing, Internet Technology	clhu@ncu.edu.tw	July and August