

Previous Undergraduate Projects

FYP: Final Year Project
CNY: CN Yang Scholars Programme Research
URECA: Undergraduate Research Experience on Campus
UROP: Undergraduate Research Opportunities Programme

	URECA	2024-2025
1	Zhang Tong Jia	4D Latte Art
	FYP	
1	Muhammad Amirul Shah Bin Imran (part-time)	3D face projection on fabric knitted half mask
2	Wee Yong Chang Nathaniel (part-time)	Additive manufacturing of customisable wrist splint using polycaprolactone filament
3	Janelle Yeo Sihui	High temperature elastic shape memory hybrids
4	Maax Toh Wei En	Characterization of electrically conductive bundles for electronic wearables
5	Neo Ting Xuan Jordon	Water rapid hardening polyurethane for minimally invasive surgery: proof-of-concept
6	Nicholas Law Jun Wei	Reprogrammable Tan Delta in shape memory hybrids
7	Tan Ee Hsiang	Solid state UV cross-linking for porous sculptures
8	Xiao Ao	Controlled folding via shape memory effect
9	Yong Chi Wei Ignatius Kevin	Controlled sequential shape recovery
10	Brandon Tan Min Ren	Influence of shape memory cycling on mechanical properties of polymers
11	Chay Yi Wei Janice	4D latte art based on shape memory materials
12	Daryl Foo	Body-temperature programmable elastic shape memory foams
13	Muhammad Faiz Bin Darman	Design of composites for high damping value over a wider temperature range
14	Fiona Asyikin Binte Muhammad Ridwan Lim	An experimental investigation of magnetic composites with reprogrammable magnetic field
15	Ian Chia Teck Jen	Shape memory effect in thermo-mechanically treated polyethylene terephthalate (PET)
16	Muhammad Irfan Shariff Bin Eunoss Shariff	Shape memory magnets with reprogrammable magnetic field
17	Issac Phyo Ne	Surface modification for powerless cooling

18	Sim Hongkai Jayden	4D printing for comfort fitting
19	Kwek Qian Er, Angelyn	Anisotropic thermomechanical properties via UV cross-linking through polariser
20	Lai Jiong Shen	Wearable electronic devices: ai assisted investigation
21	Lim Jia Yi	Characterisation of filaments for 4d printing
22	Loke Kai Fong	Green wall panel with auto irrigation and wireless monitoring system
23	Low Feng Rong	Rapid volumetric additive manufacturing in solid state
24	Melvern Lee Zhixuan	Buckling in constrained recovery in shape memory materials
25	Muhammad Azizul Halim Bin Adam	Comfort fitting touch pad for remote control
26	Muhammad Rezal Bin Aziz	Comfort fitting wrist touch pad
27	Shaune Lim Yong Sheng	Shape memory hybrids for comfort fitting
28	Tan Ding Hong	Self-formation of patterned surface via wetting and drying
29	Wong Jin Cheng	Sequentially controlled shape switching via buckling in fdm printed structures
30	Yang Haixia	Wearable fashion via 3D printing on stretchable textiles
	URECA	2023-2024
1	Eng Siaw Nee	Shape memory rubber for stretchable electronics
2	Jayden Yap Jia Yu	Applications of shape memory rubbers for comfort fitting
3	Karthikeyan Visweshvaran	Testing thermoplastic body-temperature programmable elastic shape memory polymer (SEBS+ Japan PLA)
	FYP	
1	Hein Htet Kyaw Kyaw (part-time)	Comfort fitting neck splint using polycaprolactone (PCL)
2	Spencer Yee Wai Hung (part-time)	Polycaprolactone for finger splint
3	Nguyen Minh Hoa	Buttons-on-demand
4	Muhammad Abraar Parandya	Solid resin for UV crosslinking based additive manufacturing
5	Ernest Francis Ragonot Sison	Design and 3D printing of multi-stable structures
6	Lua Guan Yu, Clarisse	Patterned shape memory effect of PET after thermomechanical treatment
7	Ng Jun Kai, Shawn	Hydrogels wetted by polyethylene glycol (PEG) solutions

8	Leo Qi Bin	Stretchable touch pads
9	Javan Koh Wei Shen	Effects of programming temperature/strain on free shape recovery of acrylic (PMMA)
10	Lai Jia Yuan Lance	Shortening hardening time of pre-heated thermoplastics at room temperature
11	Yeo Yang	Buckling of constraint recovery in 2-way shape memory polymer
12	Calvin Tay Bao Kai	UV crosslinking through polarizers for anisotropic properties
13	Muhammad Akid Danial Bin Masri	Body temperature programmable elastic shape memory polymer for powerless cooling
14	Tan Jie Min	Shape memory magnets with reprogrammable magnetic field
15	Chee Hong Xiang	Shape memory hybrids for comfort fitting
16	Ang Kok Kwang	4D latte art based on shape memory material
17	Marvin Lim Yan Yih	Water on-demand irrigation system for vertical garden
18	Eng Han Rong Rayner	Body temperature programmable elastic shape memory foam
19	Ivan Lee Kia Wee	2D additive manufacturing via solid state UV cross-linking
20	Tan Jia Qing Darius	Buttons-on-demand using shape memory alloys
21	Yee Jun Long	Brittle/ductile transition in pre-stretched polystyrene sheets
22	Mohammad Redowan (with Dr Fan Hui)	Buckling of pre-twisted threads embedded in a soft matrix
23	Koh Sin Tat Tommy	Laser treatment for laser induced graphite and 2D to 3D transition
24	Subramania Suresh Sabarish	Wearable keyboard for wireless control
25	Tee Ying Hong	Controlled 3D patterns formed via FDM printing atop pre-stretched textile
26	Chye Wei Seng	Elastic shear thickening composites
27	Koh Jian Feng, Ryan	Electro-responsive shape memory hybrid structure
28	He Jiayi	Adjustable high heel shoes
	URECA	2022-2023
1	Bui Dang Tuan	Wireless communications between ESP32 and ESP01 as an application for capacitive touch keyboards in wearable electronic
2	Gan Yi Xiang	Manufacturing Stretchable and capacitive sensing fabric
3	Liang Fu Den	Shape memory rubber for stretchable, wearable electronics
	FYP	
1	Spencer Yee Wai Hung (part-time)	Polycaprolactone for finger splint

2	Murali Seridaran (part-time)	Shape memory materials for ear impression
3	Goh Di Kai (part-time)	Design from 2D to 3D via additive manufacturing
4	Lam Zi Chiang, Alvin (part-time)	From 2D to 3D based on heat shrink materials
5	Po Wei Jian (part-time)	Design of the comfort fit medical neck cast by using shape memory material
6	Wu Chunrui (part-time)	3D printing of bistable structures
7	Jiang Xingyue (part-time)	Personalized real face 3D mask
8	Chen Wei Yi (part-time)	Water induced bending in silicone coated paper
9	Leonard Tan Jing Zhi	Patterned coloring via stretching and heating
10	Teo Chok Yong	Two way shape memory effect in acrylic (PMMA)
11	Dennis Lim Wei Yee	Dual beam solid-state UV cross-linking
12	Wu HengYue	Comfort fitting using shape memory hybrids
13	Loh Jian Yu	Rapid UV crosslinking in the solid state under random vibration
14	Tey Yi Long	Electro-responsive shape memory hybrid
15	Tay Yu Feng	3D latte art based on shape memory material
16	Liang Wei Jun	Composites with high tan delta over a wide temperature range
17	Seah Wei Ming	Recycling of Polymeric Materials
18	Ang Xin Yin	Modification of resin with body-programmable characteristics for additive manufacturing
19	Ng Jue Yin	4D printing of novel devices
20	Tan Zheng Ching Alden	Brittle to ductile transition of polystyrene by high temperature programming
21	Lim Woon Pink (with Dr Fan Hui)	3D printing assisted fashion design
22	Chan Shu Fei	Height adjustable high heel shoes
23	Amin Fauzan Bin Abdullah	Body temperature programmable shape memory hybrids for comfort fittings: splints and insoles
24	Liow Zhen Yi (with Dr Fan Hui)	Buckling of pre-twisted threads embedded in a soft matrix
25	Slyvester Wong Yu Jian	Artificial soil for soilless gardening
26	Tobias Chan Si Chow	Cost-effective technique for powerless cooling
27	Teo Leng Hui Jacqueline	Modification of UV resin for solid state transportation
28	Gay Shi Hui, Angela	Tailoring the properties of shape memory polymers via UV cross-linking
29	Jerrell Seow	Flexible touchpad via LIG: preliminary result
30	Foo Shi Yu	Characterization and applications of two-way shape memory polymers

31	Dinesh S/O Chandran	Rapid hardening of electrospun foam in water for minimally invasive surgery
32	Tai Ruiwen (with Dr Fan Hui)	Surface pattern classification and applications
33	Woo Jetson	Body-temperature programmable shape memory UV resin
	URECA	2021-2022
1	Daniel Low Teck Fatt	Electrical layer in two-dimensional stretchable material
2	Tan Jie Min	Applications of shape memory rubbers for comfort fitting
	FYP	
1	Zhang Kun (part-time)	Comfort fitting via 4D printing
2	Ng Yong Chuan Kenneth (part-time)	Shape memory polymer monitoring for minor overheating based on shape change effect
3	Muhammad Ashraf Bin Harun (part-time)	Cost-effective non-slipping mask
4	Nico Quek Ping Yang (part-time)	Instant personalized face masks
5	Xu Ye (part-time)	Design of the comfort fit medical splint with electrical device by using shape memory material
6	Lim Zi Ting (part-time)	Elastic shape memory material for instant write support
7	Lim Woon Yong (part-time)	Optimization and size effect in FDM
8	Lee Jing Yi Godrey (part-time)	Shape switching from 2D to 3D via FDM
9	Mohammad Haziq Bin Mohamad Ikhsan (part-time)	Comfort fitting wrist keyboard
10	Chen Shuo (part-time)	From 3D to 4D printing with flexible resin
11	Zhu Zhangrui (part-time)	Coloring and patterning of 4D latte art
12	Pek Jia Xi	Brittle-ductile transition of amorphous polymers via high temperature programming
13	Muhammad Ridhuan Bin Mohamed Hairi	Additive manufacturing of cooling responsive shape memory hydrogel via FDM printing
14	Abdul Hanif Bin Abdul Harris	Micro “butterflyers” in stretching of shape memory polymers at different temperatures
15	Kay Hean Zhou	Stretchable conductive threads for touchpads
16	Lee Zheng Xian Rayner	Shape memory sock-shoes

17	Regine Lee Di Jing	Surface patterning via wetting and drying
18	Ng Jun Hong	Ethanol active shape memory polyurethane produced via electrospinning
19	Mohamed Ashiq Bin Mohamed Jalal (with Dr Fan Hui)	Experimental study of relations between the micro-patterns and macro buckling behavior
20	Zhang Jingkang	4D latter art based on food grade materials
21	Cheong Fy Yao (with Dr Fan Hui)	Wrinkling control of elastic membrane within a soft matrix
22	Tay Kai Wen	Flexible and stretchable touchpad
23	Oh Jun Xian	Hydrogel-based green walls
24	Yeo Jia Jia (with Dr Fan Hui)	Controlled wrinkling of elastic membrane on top of soft matrix
25	Lingeyswaram Paramasilvam	Patterned coloring and shape memory effect of polyethylene terephthalate via thermo-mechanical treatment
26	Tan Ming Wang	Producing positive/negative surface patterns using one mold and its applications
27	Muhammad Imran Nainamsa S/O Abul Kassim	Wrinkling for stretchable electronic devices
28	Chew Jia Hao	Mass-recycling of polymer waste
29	Amos Lim Xuan Qi	Water-induced rapid hardening of shape memory foam
30	Alif Danial Bin Mohamed Jumari	Buttons-on-demand using shape memory alloys
31	Toh Li Shun	Design, fabrication and characterisation of moulded shape memory shoes
32	Yau Chun Wei	Minimization of evaporation an high temperatures and water droplet induced bending
33	Wee Pin Sheng	Controlled unfolding of elastic hinges
34	Deepagcharan Chandran	Elastic thermoplastic shape memory polymer for comfort fitting
35	Koh Yuan Han Nicholas	Hardening of thermoplastic polyurethane (TPU) and Mullin's effect
36	Liu Yong Xuan	Influence of positive/negative surface patterns on surface contact angles
37	Jolyn Chua Mui Zhen	UV cross-linked body temperature programmable/shape memory polymer
38	Neo Le Xuan	Mud removal with water-swelling polyurethane sealant
39	Clarence Foo Chuan Wei	Height adjustable high heel shoes
	URECA	2020-2021

1	Tan Jun Jie Benjamin	Shape memory rubber for stretchable electronics
2	Xu Hao	Comfort fitting N95 masks without leakage using shape memory polymer
	FYP	
1	Koh Shun, Merton (part-time)	3d printing of bistable structures
2	Jackson (part-time)	Smart material for anti-counterfeit and temperature indicator applications
3	Leonard Teo Ee Tong (part-time)	Comfort fitting: shape memory shoes upper
4	Teo Ee Hian (part-time)	Design and 3d printing of reconfigurable structures
5	Azharuddin bin Mohamed Naseem (part-time)	Shape memory composites for comfort fitting
6	Wong Chun Hao	Design of shoes with adjustable high heel
7	Noor Mustikha Binte Noor Khalid	An experimental investigation of shape memory polymer for alcohol activated self-tightening band-aid
8	Tan Richard	Multiple-layered anti-counterfeit labels
9	Muhammad Fyras Bin Azlan	Recycling of polymeric materials
10	Melvin Chua Zhen Zhou	Buckling of pre-twisted wires embedded in polymeric matrix for future wearable electronic device
11	Kiong Jienyi Michael	Instability under compression of wire/ strip embedded in silicone
12	Jason Tan Jia Jun	Body-temperature programmable Thermoplastic elastic shape memory polymers
13	Muhammad Ridzwan Bin Rashid (with Prof. Fan Hui)	Experimental study on the effect of the micro-structure on the macro bulking behaviour
14	Yeo Rui Xiang	Rapid manufacturing of complementary topological surfaces
15	Ng Boon Siang Lucas	Characterisation of commercial shape memory vitrimer
16	Hazel Teo Hui Ting	Lightweight high strength panel for green wall
17	Jeffry Zheng Weixiang	Flexible RFID with shape memory
18	Muhammad Faiz bin Mohd Basir	Controlled unfolding of an elastic hinge
19	Chan Jun Wei	Body temperature programmable elastic thermoset shape memory polymer with elastic transition part
20	Ee Kai Jian	4d latte art based on shape memory effect
21	Faqrul Hasif Bin Abdul	Rapid volumetric additive manufacturing in solid-state: a case study using thermal gel

	Nasir	
22	Oh Wei Xiang	Anti-heat transfer labels with shape memory polymers
23	Muhammad Irfan S/O Halelur Rahman	Coating to control evaporation at high temperatures
24	Aisleen D/O Yobbo	Stretchable fabric for wearable electronic devices
	URECA	2019-2020
1	Amos Lim Xuan Qi	Characterization of a shape memory polymer
2	Andy Koh Jun Hoong	Design of a comfort-fitted running shoe
3	Tang Wenqing, Darryl	Reversible shape switching in acrylic upon thermal cycling below glass transition
4	He Yufan	Investigation of moisture-absorbing polyurethanes
	FYP	
1	Hu Wenyue (part-time)	Instantly personalized facial mask
2	Lee Li Wen (part-time)	Elastic shape memory materials for instant comfort fitting on footwear
3	Shaikh Mohamed Akbar Bin Mohamed Kaiash (part-time)	Design and 3d printing of reconfigurable structures with pre-determined switching sequence
4	Tan Yi Loon (part-time)	4D printing for comfort fitting
5	Toh Si Yao	From 3D printing to 4D printing
6	Low Fang Yu	Anti-heat transfer labels
7	Lua Ker Yan	Characterization of shape memory effect in engineering polymers
8	Sakinah Binte Lokman	Wrinkling and cracking atop elastic shape memory polymer
9	Goh Kheng Hui	Control solidification speed of polyurethane
10	Chan Xiao Qi, Kelly	Elastic shape memory polymers with embedded electronic devices for comfort fitting
11	Vatsal Pranav Joshi	Coating to control evaporation at high temperatures
12	Nitro Chan Tiao Guan	Design of shoes with adjustable high heel via mobile phone
13	Lee Zhi Hui	Controlled unfolding of an elastic hinge using high temperature shear thickening material
14	Amos Ng Zheng Xiong	Heat activated anti-counterfeit tactile labels
15	Tsen Shyuan Min, Jerome	3D latte art based on shape memory material
16	Chia Jia Xun Benjamin	An experimental investigation of shape memory polymer for alcohol activated self-tightening

		band-aid
17	Elrond Choa Yue Rong	Stretchable elastic thread with constant electrical resistance
18	Audrey Parveen Kaur	Lightweight high strength panel for green wall
19	Bernie Tan Peng Shi	Wearable electrical device
	URECA	2018-2019
1	Fang Che Yong	Experimental investigation of an elastic shape memory polymer
2	Tan Yi Jie	Effects of water concentration on the shear strengthening behaviour of borax – water – PVA polymer hydrogel
3	Zhu Junping	Coating to control the evaporation speed of perfume at high temperatures
	FYP	
1	Chen Luheng (part-time)	Design of shape memory shoes for comfort fitting
2	Phyo Aung Khant (part-time)	Shape memory sole embedded with shear thickening materials
3	Sun Yi Jie (part-time)	Water-responsive shape memory effect in tough hydrogel
4	Wong Shi Chow (part-time)	Shape memory effect in plant leaves
5	Lim Zhi'en	Ultraviolet cured coating for anti-counterfeit application
6	Ng Han Peng	4D latte art
7	Wai Yan Oo	Lightweight high strength panel for green wall
8	Ho Wei Lun	Design of shape memory shoes upper for comfort fitting
9	Thian Hui Ning	Anti-heat transfer label
10	Khoo Teik Wee	Stretchable electrical devices using elastic shape memory film
11	Cassidy Lee	Buckling phenomenon for wearable electrical devices
12	Catherine Ng Jia Lin	3D printing assisted fabrication of shape memory shoes
13	Kenny Soon Giap Wei	Active disassembly of polymeric materials for recycling
14	Teng Jia Wen David	Characterization of shape memory polymers
15	Timothy Tan Wei En (with Prof. Vicky Nguyen@ Johns Hopkins University)	Characterization of a commercial thermoplastic elastic shape memory polymer

	URECA	2017-2018
1	Goh Jian Wei Nigel	Comfort fitting sock-shoes for higher sport performance
2	Ivan Immanuel	Slow deployment of elastic hinges for space applications
3	Lee Zi Kang	3D printed shape memory shoes: one size for all
4	Ong Jia Hui	Disassembly of polymeric materials for recycling
	CNY	
1	Chin Chun Hwee	Characterization of thermo-responsive polymeric shape memory materials
2	Timothy Tan Wei En	Verification of a novel material for wrinkle removal to replace hyaluronic acid
3	Tu Wei Han	Shear thickening in elastic shape memory hybrids for wearable protection
	FYP	
1	Lin Hongying (part-time)	Easy peel off nail polish
2	Ji Peng Yuan (part-time)	Characterization of the shape memory effect in natural biopolymers
3	Zhang Yan (part-time)	Design and 3D printing of reconfigurable structure
4	Zhang Zhonghua (part-time)	Comfort fitting using thermoplastic polyurethane
5	Adzizul Fadleigh Bin Ramli	Characterization of the shape memory effect in printing/writing transparency, Eflex TPU & eElastic TPE filaments
6	Abdul Hakim Bin Mustafa	From 3D printing to 4D printing
7	Jonathan Joseph Wee Yaowei	Control of evaporation of substances at high temperature
8	Kuah Zhen Sheng	Control of solidification speed in thermoplastic polyurethane
9	Leong Jie Xiang	Design of shoes with adjustable high heel via mobile phone (part 2, control design)
10	Lim Junyi	Healing of scratches atop polymeric materials
11	Pranata Tanius	Lightweight high strength panel for green wall
12	Shingar Aggarwal	Designing height adjustable heels
13	Tan Li Jie	Characterization of polymers for anti-counterfeit labels
14	Yuan Jing	Multiple layered anti-counterfeit labels

15	Muhammad Yusoff Bin Ab Rani	An experimental investigation of self-coloring of polymeric materials without coating/painting
	URECA	2016-2017
1	Muhammad Dhyaksa Ariadi	Electrical resistivity of magnetically aligned nickel-carbon black-polyurethane composite
2	Chow Jiun Fatt	Anti-heat transfer labels with shape memory polymer
3	Steven	Increasing the durability of mobile charger cable and thin wires
4	Hermanto Tanzil	Smart material as magic material
	CNY	
1	Timothy Tan Wei En	Programming & Reprogramming shape memory acrylic
	FYP	
1	Deannz Ng Wei Ting (part-time)	Shape memory foam for helmet
2	Fan Zhen (part-time)	Characterization of the shape memory effect and elastic response of deoxyribonucleic acid (DNA)
3	Ng Chong Hou Garvin (part-time)	Design and 3D printing of reconfigurable structures
4	Chan De Sheng	Anti-heat transfer labels
5	Venessa Chan Mang Yun	Multi-layered anti-counterfeit labels
6	Lee Yun Xiang	An experimental investigation of self-coloring of polymeric materials without coating/painting
7	Lim Zhi Pei	Design of an integrated Moire effect system
8	Muhammad Syazwan Bin Rosli	An experimental investigation of healing of scratches atop polymeric materials
9	Benjamin Tan Zhi Wei	From 3D printing to 4D printing
10	Tan Zhong Jie	Buckling of conductive layer within shape memory matrix
11	Tan Shi Yuan	The control of shape recovery in polymers
12	Tan Chin Hong	Monitoring temperature by observation using naked eye on shape memory effect
13	Toh Jun Jie	Characterization of the shape memory effect in brass (Cu ₇₀ Pb ₃₀)
	URECA	2015-2016
1	Teng Han Jer	Shape memory properties of poly(ethylene terephthalene) and its application on anti-

		counterfeiting labels
2	Kee Yong How	3D-Fingerprint
3	Tan Chee Sheng	Smart material for magician
4	Tew See Peng	Disassembly of polymeric materials for recycling
	FYP	
1	Li Jiajun (part-time)	3D printing using elastic polylactic with shape memory effect and multiple stabilities
2	Lu Peng (part-time)	Comfort fitting using shape memory polymer
3	Muhammad Hairul Izwan Bin Mohd Zakee	An experimental investigation of self-coloring of polymeric materials without coating/painting
4	Koh Fu Kai	Reliability of shape memory effect based polymeric temperature sticker for cold chain logistic
5	Dudley Lin Zeyi	Healing of scratches atop polymeric surfaces
6	Ng Yong Quan	From 3d printing to 4d printing
7	Phang Wei Da, Victor	Reversible surface patterns for future autonomous cars
8	Bai Jing	Temperature memory effect in shape memory materials for overcooling monitoring
9	Tan Guan Hua	Anti-counterfeit labels based on reconfigurable lenticular lens
10	Felicia Teo Yan Ting	Anti-heat transfer labels
11	Thiri Htet Oo	Characterization of the shape memory effect in engineering polymer “Pei / Ultem”
12	Muhammad Fadzli Bin Yusoff	The wireless controlled microvalve
13	Xu Yujiu	Thermo-responsive shape memory effect in shape memory alloys
	URECA	2014-2015
1	Khor Jun Onn	Novel sensors to detect change in temperature/moisture level in surround environment based on the shape memory/change effect in hydrogel
2	Tan Phei Chieh	Self-assembly using self-healing hydrogel
3	Tan Tek Wui	Shape Memory Anti-counterfeit Labels
4	Kevin Voo Sze Kiat	Alternative method of forming micro/nano-scale stripe-shaped wrinkling pattern atop polymer
	FYP	
1	Ong Ley Sa, Lisa	Chemo and heating responsive shape memory in noodles

	(part-time)	
2	Goh Zhuo Rong, Jordan (part-time)	Finger-glove for touch screen devices
3	Yang Jingjing (part-time)	Bi-stable mechanism for morphing wings
4	Koh Zhen Shun Randy (part-time)	Anti-heating transfer label
5	Derrick Koh	Multiple-layered anti-counterfeit labels
6	Benny Lau Zhen Bin	A feasibility study of 4d printing with current technologies and materials
7	Leow Wei Chong Eugene	Temperature memory effect in shape memory polymer for over heating monitoring
8	Loh Yu Jie	Thermo-responsive polymeric labels for anti-counterfeit and over-heating temperature monitoring
9	Muhammad Faiz Bin Mohammed Fawzi	Reliability of shape memory effect based polymeric temperature sticker for cold chain logistic
10	Ong En Zhi Gerry	Active disassembly of polymeric components
11	Win Sanda Moe	Design and 3d printing of reconfigurable structures
		2013-2014
	URECA	
1	Tan Phei Chieh	Shape memory polymeric materials
2	Khor Jun Onn	Shape memory polymeric temperature sensor to monitor over-heating
3	Chay Ching Yee	Writing/operating devices for touch-screen
4	Tan Tek Wui	The shape memory effect for magic name card
	CNY	
1	Ng Yee Fatt	Using novel mechanisms and materials to create morphing structures
	FYP	
1	Chen Chunyang	Design of shape memory polymeric sensors
2	Koh Tiong Choon	3D printing for 4D reconfigurable motion generation based on the shape memory effect
3	Lin Xiaocong	Active disassembly of devices and materials
4	Pennefather Pyne Luke	A study of shape memory effect in hydrogel/polyethylene glycol hybrid
5	Na Hsi-chung	Characterization of the shape memory effect in polymers
6	Ong Yong King	Shape memory phenomena of poly-(methyl methacrylate)

7	Tian Yu Long	A study of the shape memory effect in polymers based on the photoelastic effect
8	Eugene Yeo Jun Hao	3D printing assisted conceptual design of biodegradable PLA surgical staple with self-tightening function
	URECA	2012-2013
1	Chia Joo Khim	Smart material for magician
2	Khaw Kok Liang	Wing morphing using novel mechanism & materials
3	Lim Seen Suan	Writing or operating devices for touch-screen
4	Chay Ching Yee	Smart Materials based micro inchworm
	FYP	
1	Ong Wei Ming (part-time)	3-D rolling car driven by shape memory alloy (SMA)
2	Ng Ban Hoe (part-time)	An experiment of water-responsive shape memory hybrid
3	Tan Hui Khiang, Alvin (part-time)	Folding/unfolding a temporary shelter made of rigid pieces
4	Chew Jinming	Conceptual study of shape memory polymer staple with self tightening function
5	Chin Wei Sheng	Self-healing materials for Terminator VI
6	Gu Yuchen	Shape memory effect in PMMA
7	Lim Xinglin (with Prof. Fan Hui)	Friction dependence on surface patterns
8	Lu Jun Long Mervyn	3-D compound microlens array (insect eye) atop PMMA
9	Ong Wee Ling Jacqueline	Characterization of surface morphology atop shape memory materials
10	Peh Khian Huat	Experimental study of pre-strain on the shape memory effect in ethylene vinyl acetate (EVA), polystyrene (PS) & polymethyl methacrylate (PMMA)
11	Tan Wee Bing	Cornstarch for protection engineering
12	Tan Jun Liang	Design and characterization of multiple-stimuli responsive shape memory hybrid
13	Teo Chun Wei	Triple-shape memory effect, shape change effect and temperature memory effect in Nitinol
14	Wu Youhong Edwin	A design, fabrication and testing of morphing UAV
15	Zhang Fan	PMMA for anti-counterfeit application

		2011-2012
	URECA	
1	Tan Khum Ling	Smart material for magician
2	Loh Jenn Yen	Wings morphing using bi-stable structures
	FYP	
1	Tam Wen Qing, Shawn	A study on actuating mechanisms for a micro pump using nickel-titanium wires
2	Howard To On Ho	Nano sized devices with shape memory
3	Seow Zhen Gang	Characterization of the shape memory effect in PC and PTFE
4	Lim Kok Jiak	Self-healing material for terminator VI
5	Shee Shimin Susanna	Refreshable Braille paper for the blind
6	Tan Hui Xin	Characterization on shape memory effect in ethylene-vinyl acetate and polyether ether ketone
7	Liu Shu Yun	Polymer composites with carbon nanotubes for high performance
8	Zhang Yujie	2-D micro rolling car activated by shape memory alloy
9	Chan Wei Ming James Jonathan	Active disassembly of obsolete handphone using shape memory materials
10	Ying Zhi	Preliminary study on the shape memory effect of silkworm silk
		2010-2011
	URECA	
1	Chia Jiun Wei	Smart material for magicians
	FYP	
1	Lim Li Wen (with Prof. Zheng Lianxi)	Towards the delivery of nano devices for the functioning inside a living cell
2	Jiang Mengyuan	Shape memory effect in biodegradable polymer
3	Ong Fu Lin (with Prof. Fan Hui)	Experimental study of liquid spreading on pattern surface
4	Chan Huang Boon Lester	Novel shape memory materials
5	Chan Shi Yi	Nano sized devices with shape memory
6	Lau Shi Wan Priscilia (with Prof. Zheng Lianxi)	Polymer composites with aligned carbon nanotubes for high performance
7	Ting Leong Hee	Self healing material for terminator VI
8	Cheah Wei Shin	2-D micro rolling car active by shape memory alloy

9	Xu Wei Wei	Active disassembly of obsolete handphones using shape memory materials
10	Chew Bang Wei	Morphing wing concept for unmanned aerial vehicle (UAV)
		2009-2010
	URECA	
1	Cheah Wei Shin	2-D rolling car
2	Loy Hui Peng	Sunlight active shape memory alloy heat engine
	UROP	
1	Yap Soon Ann	Shape recovery active by cooling
	FYP	
1	Chia Qiu Yan	Reversible dimples for unmanned aviation vehicles
2	Chia Jia Liang	Fabrication and characterization of polyurethane shape memory polymer
3	Huang Ruixiang	Artificial bat wing
4	One Shang Cheng David	Active disassembly of obsolete hand phones using shape memory materials
5	Koe Ju Jin Sean	Investigation into 2-D/3-D buckling of microfibers/wires atop/within polymer/gel
6	Leong Chong Han (with Prof. Low Kin Huat)	Design and development of UAV launcher for use in motion capturing experiment
7	Fu Weiming	Fabrication and characterization of shape memory polymer composites
8	Ong Song Yi (with Prof. Zheng Lianxi)	Polymer composites with aligned carbon nanotubes for high performance
9	Wei Jun	Novel shape memory materials
10	Liew Kok Cherng (with Prof. Zheng Lianxi)	Design and characterization of silicone-sodium acetate shape memory hybrid
11	Low Choon Teng, Fablian (with Prof. Zheng Lianxi)	Towards the delivery of nano-device for functioning in a living cell
12	Xue Gui Yao (part-time)	Concepts of active disassembly using shape memory polymer
		2008-2009
	URECA	
1	Albert Darren Soetarto	2-D rolling car

2	Liew Kok Cherng	Pressure responsive shape memory polymer
3	Wei Jun	A new shape memory material system
	UROP	
1	Teo Qing Ren	Novel shape memory materials
	FYP	
1	Ho Xiao Ting Stephane (with Prof. Fan Hui)	Experimental characterization of heterogeneous materials
2	Eric Charlie	Micro pump using shape memory alloy thin films
3	Tay Zhen Yao	Self recoverable structure/material
4	Tay Si Ying Sharon (with Prof. Chen Yan)	Morphing structures
5	Lim Chuan Kai	Shape restoration using shape memory materials
6	Goh Chee Siew (with Dr Q Xie@DSI))	Laser assisted micro patterning atop shape memory polymer
7	Teo Jun Wei	Characterization of silicone-carbon black polymer composites
8	Lee Chia Seah (with Prof. Fan Hui)	Experimental study of liquid spreading on pattern surface
9	Tay Wei Jie	Reversible dimples for unmanned aviation vehicles
10	Ang Rong Hong (with Prof. Fan Hui)	Liquid droplet spreading on rough surfaces
11	Liu Ga Seng	Wing morphing in UAV using shape memory polymer
12	Khusbir Kaur Chail (with Prof. Li Chuan)	Fabrication and characterization of microshape memory polymer beads
13	Yong Wei Ming (with Prof. Li Chuan)	Electrical conductivity of silicone filled with carbon fillers
14	Yuan Quan (part-time)	Electrical conductivity and thermo-mechanical properties of a polyurethane shape memory polymer filled with aligned micro-sized Ni powders
15	Nyein Nyein Ei (part-time)	Testing and analysis of shape memory materials
16	Wong Hai Chiu (part-time)	Smart actuator using shape memory alloys
17	Soon Kian Ling	Design of shape memory hybrid

	(part-time)	
		2007-2008
	FYP	
1	Liu Jinpeng	Influence of chained Ni powders on electrical resistivity of paraffin wax filled with carbon black
2	Wang Guozuan Adrian	Influence of pre-deformation on the indentation of aluminum alloy
3	Daniel Chong	Stimulation of shape-recovery in SMP composites by an alternative method of heating
4	Yapp Parry Edgar	Solar engine using shape memory alloy
5	Lin Junqiang	Formation of micro/nano sized protrusion arrays atop shape memory polymer
6	Ang Mei Ting (with Prof. Sutthiphong Srigrarom)	An experimental investigation of the effect of thin film extension on mechanical fish propulsion
7	Wang Zhaomeng (with Prof. Zhao Yong)	Numerical study of fluid flow over complex wall surface structures
8	Cen Jinfeng Royce (with Prof. Li Lin)	Fabrication and characterization of ultrathin polymeric film
9	Pan Jiahui (with Prof. Fan Hui)	An experimental study of liquid spreading on pattern surface
10	Soh Yong Jin (with Prof. Fan Hui)	An experimental investigation of indentation size effect in aluminum and silicon wafer
11	Low Kok Chang (part-time)	Dynamic increase factor
		2006-2007
	FYP	
1	Ng Zhan Chao	Characterization of polyurethane shape memory polymer mixed with palygorskite clay
2	Lee Mingxiong, Paul (with Prof. Nguyen Nam Trung)	Reversible micro bubbles in a shape memory polymer
3	Tan Tick Joo (with Prof. Li Chuan)	Design a lift mechanism for micro hard disk
4	Lim Hui Yu	Finite element analysis for failure in LCD panel in bending

	(with Prof. Fan Hui)	
5	Chen Yahui (with Prof. Zhao Yong)	A study of flapping pattern and wing structure of dragonfly (Odonata)
6	Eugene Goh Teck Guan (with Prof. Liu Erjia)	Surface work-hardening of metals & polymers
7	Han Ji	Size and shape effect on surface tension in pulling cones out of water and oil
8	Chan Cheng Siong	Conductive shape memory polymer thin films
9	Ang Ee Yang (with Prof. Yang Chun, Charles)	Influence of surface morphology on surface stress in shape memory alloy
10	Chew Kian Leong, Daniel	Patterning atop shape memory polymer
11	Chan Zigeng (with Dr Xie Qiong@DSI)	Laser fabrication of micron/nano sized features atop shape memory polymer
12	Lin Zijing	Deformation pattern in stretching a tube
13	Chen Chee Chye (with Prof. Fan Hui)	Experimental study on friction between smooth surfaces
14	Chean Jin Yan	Temperature memory effect in shape memory alloy
15	Ho Ching Mun, Vincent	Influence of pre-strain on Vickers hardness number of aluminum alloy 6061
16	Myo Nyi Nyi (part-time)	Designing a shape memory alloy actuating system
17	Gay Choon Keat, Alvin (part-time)	Design of a multi-package device carrier
		2005-2006
	FYP	
1	Tan Lee Huang	Influence of moisture on magnetic shape memory polymer
2	Siow Gee Jye (with Prof. Fan H)	Experimental study on micro-scale friction
3	Siew Seng Yeow	Fabrication micro devices using shape memory polymer
4	Tan Shai Zhi Gemi	Wrinkling of thin metallic film atop of shape memory polymer
5	Aaron Rajoo (with Prof. Zhao Y)	An experimental investigation of the hydrodynamic behavior of a fish swimming

6	Jenny D/O Abdul Jabbar	Influence of surface condition on microindentation
7	Goh Sujuan	Wrinkling in metallic thin film deposited atop of shape memory substrates
8	Phay Yee How Brandon	Active disassembly using shape memory polymers
		2004-2005
	FYP	
1	Chan Siong Yee	Effect of moisture on mechanical properties of conductive shape memory polymer
2	Lim Shiuh Mei	Microindentation of NiTi film on an aluminium substrate
3	Wooi Lian Hong	Investigation of shape memory materials
4	Leng Sze Chah	Influence of surface condition on microindentation
5	Oh Keng Cheng	Using 4-point bending data to derive tensile and compressive curves and carrying out fractal dimension analysis on NiTi alloy
		2003-2004
	UROP	
1	Yeong Chee Kai (with Dr Mai Tuan Anh @SIMTech)	Microstructuring of Glass by Laser Glass Milling
	FYP	
1	Chua Siew Lim	Characterization of Shape Memory Alloy (SMA) Wire Based on Resistance Measurement
2	Lim Bee Yan	On the Evolution of the Young's Modulus and Energy Dissipation in NiTi Shape Memory Alloy Wires
3	Chor Jun Hoe	Characterization of Shape Memory Materials by Dynamic Mechanical Analysis
4	Chan Yew Sum, Sunny	Fabrication and Testing Shape Memory Polymers
5	Ng Shu Bing (with Prof. Shu DW)	Effect of Strain Rate on the Behaviour of Shape Memory Alloy
6	Goh Soo Loon (part-time)	Design of Shape Memory Alloy (SMA) Based Actuator
7	Tan Teck Leong (part-time)	Design of Shape Memory Polymer Based Device

		2002-2003
	UROP	
1	Lim Kean Hee	Energy Dissipation and Evolution of the Young's Modulus of Martensitic NiTi Shape Memory Alloy Wire upon Cyclic Loading
	FYP	
1	Ng Wei Lee Ben	Effect of Pre-Stressing on the Transformation Temperatures in Training a Two-Way Shape Memory Alloy
2	Lee Chow Ming	On the Effects of Moisture in the Glass Transition Temperature of a Shape Memory Polymer
3	Loh Yen Ju	Design of Finger Reading System for Blind Man with Shape Memory Alloys
4	Chan Kee Chor Alex	Applications of Shape Memory Polymer in Bio-Micro Devices: Micro Tag
5	Kwek Chin Soon Daniel	Stress Evolution in Shape Memory Alloy Wires upon Thermal Cycling
6	Ng Lim Hing Michael (with Prof. Guo Ning Qun)	Alternative Approaches for Characterization of Shape Memory Alloys
7	Chin Jiun Bing (part-time)	Shape Memory Alloy Micro Gripper with Multi-Degree-of-Freedoms
		2001-2002
	UROP	
1	Rinov Herawan (with Prof. Cheng I-Ming)	Control and application of shape memory alloy thin wire
	FYP	
1	Huang Ean Khim (part-time)	Retractable Roof
2	Teo Hoon Peng	Thermomechanical Behavior of Shape Memory Polymer Foam
3	Lee Cher Wei Glenn	Application of Shape Memory Polymer
4	Kua Soo Han	An Internet Online System: Yield Surface Generator
5	Tan Wee Lee	CuZnAl Shape Memory Alloy for Hard Disk
6	Lee Eng Kwang	Design of Shape Memory Alloy Spring
7	Chong Yong Thye	Measurement of Phase Transformation in Shape Memory Alloys Using Vibration Analysis
8	Lim Swee Cheng	3D Micro-Assembly for Tissue Engineering (NUS, with Dr Etienne Burdet etc.)

		2000-2001
	UROP	
1	Teo Beng Koon William (with Prof. Cheng I-Ming)	Control and applications of shape memory alloy wire bundles
	FYP	
1	Chua Ming She (part-time)	Composite with embedded SMA fiber for minimization of thermally induced expansion
2	Goh Han Boon	Training of two-way shape memory alloy by reheat treatment: determination of long-term stability and optimum reheat treatment condition
3	Kung Hwei Kuok	Relaxation in shape memory alloy
4	Loo Boon Keng	Two-way shape memory alloy based micro gripper
5	Ong Li Fung	Shape memory alloy for micro assembly
		1999-2000
	UROP	
1	Khor Choo Chyan	Milli-gripper with two degrees of freedom using shape memory alloy
2	Toh William	Training two-way shape memory alloy by reheat treatment
3	Lu Wai Hong	Phase transformation front movement in TiNi shape memory alloy wire
	FYP	
1	Teu Soo Chen	Grain boundary effects in shape memory alloy
2	Ng Chee Kin	Shape memory alloy heat engine
3	Chua Wei Pin	Shape memory alloy based inchworm
4	Tey Shaw-Jiann Gary	Long term thermomechanical stability of cold hibernated elastic memory shape memory foam
5	Lian Shi-Er Benjamin	Shape memory alloys based aquatic biomimetics
		1998-1999
	UROP	
1	Wong Yew Leong	Effects of pre-strain on the transformation temperatures of NiTi shape memory alloys
2	Tey Shaw-Jiann Gary	Novel shape memory alloy "fuse" for electrical circuit protection
3	Ng Koon Ai	Phase transformation front movement in NiTi shape memory alloy

