Symposium Schedule – Friday, April 16, 2021

Morning Presentation Session

9:00 – 10:00 a.m.

Faculty Moderator: Dr. John Smith

"Better system for detecting, revising and confirming Java program security bugs" – Chunyang Tang Faculty Sponsor: Dr. Young Lee

"Legendre's Theorem" – Bruce McOsker Faculty Sponsor: Dr. Jingbo Liu

"Biological Branching Patterns explained by Fractal Geometry Theory" – Victoria Lucero *Faculty Sponsor: Dr. Kun Gou*

Register for This Session

https://tamusa.zoom.us/meeting/register/tJYkdemsrzorGdVUDOcdtW7vwszFLMmEpxjU

Once you register, you will receive a link and password to the session; make sure to add to your calendar!

If you do not have Zoom, be sure to click the "Sign up free" found in the link (see below)

Morning Poster Session 10:00 – 11:00 a.m.

Faculty Moderator: Dr. Amy Bohmann

"How fictional pandemics reflect a real-life understanding of the science of illness" – Andrew Klebahn *Faculty Sponsor: Dr. Jackson Ayres*

"Predicting University Students' Volunteerism" – Luis Perez Faculty Sponsor: Dr. Amy Bohmann

"Dual Task Facilitation May Improve the Identification of Missing Persons" – John Whitehorn and Rolando Guerrero Camacho

Faculty Sponsor: Dr. Dawn Weatherford

"The N250 as an Index of Criminal Face Familiarity" – Alonna Rios, Audrie Cabrera, and Nikai Hinojosa Faculty Sponsor: Dr. Mario Baldassari

Register for This Session

https://tamusa.zoom.us/meeting/register/tJMrc-qspiIsE92gF1NHQfvS9AjQwyygkxjk Once you register, you will receive a link and password to the session; make sure to add to your calendar! If you do not have Zoom, be sure to click the "Sign up free" found in the link (see below)

> Special Workshop Session How to Apply for PhD Programs Faculty Presenters: Dr. Weixing Ford and Dr. Ho Huynh 11:00 a.m. – 12:00 p.m.

> > Register for This Session

https://tamusa.zoom.us/meeting/register/tJModeGsqD0uH9ZojUgAS6DTVyXzaNb1hGT1

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> Keynote Speaker 12:00–1:00 p.m.

Introduction: Dr. Vijay Golla

Speaker Mr. Branson P. Brockschmidt Research Engineer, Manufacturing and Robotic Technologies Southwest Research Institute

"How Recent Advancements Allow Robots to Perform Complex Tasks"

Mr. Brockschmidt is a robotics research engineer at Southwest Research Institute. He has worked on a variety of projects that range from developing a robot to print graphics on airplanes to building small tools for handling delicate food products. Mr. Brockschmidt holds a degree from North Carolina State University in Mechanical Engineering.

<u>https://tamusa.zoom.us/meeting/register/tJMlc-GtqzkuE9XG59uQFpTyp6Qr_SNzbjeL</u> Once you register, you will receive a link and password to the session; make sure to add to your calendar! If you do not have Zoom, be sure to click the "Sign up free" found in the link (see below)

Afternoon Presentation Session 1:45 – 3:00 p.m.

Faculty Moderator: Dr. Ho Huynh

"The Inescapable Death of a Culture" – Deborah Hoggard Faculty Sponsor: Dr. Jackson Ayres

"Spanish Flu of 1918" – Jacob Monteverdi Faculty Sponsor: Dr. Amy Porter

"Increasing Public Access to Holistic Wellness through Social Media" – Melisa Arroyo Faculty Sponsor: Dr. Tamara Hinojosa

"A Conceptualization of Physician Humility from the Patient's Perspective" – Caitlyn Nelson *Faculty Sponsor: Dr. Ho Huynh*

Register for This Session

https://tamusa.zoom.us/meeting/register/tJMrf--tqjsoGdYMgjQ0CjHG2365qtRpg2zx

Once you register, you will receive a link and password to the session; make sure to add to your calendar! If you do not have Zoom, be sure to click the "Sign up free" found in the link (see below)

Afternoon Poster Session 3:00 – 4:00 p.m.

Faculty Moderator: Dr. Dawn Weatherford

"COVID Oral History Project" – Tyler Rhea and Rafika Islam Faculty Sponsor: Dr. Sandra Lara

"Go Green: The Psychological and Physiological Benefits of Natural Environments" – Gabrielle Thompson, Dylan Escalante, Nadia Padron, Nikai Hinojosa, Cody Lace, Joanna Martinez Gutierrez, Mark Torres, and Payton Davis *Faculty Sponsor: Dr. Dawn Weatherford*

"Building Bridges to Improve Social Communication in Children with Autism Spectrum Disorder" – Shanna Nunez, Jessica Lazcano Trevino, Madeleine Anderson, and Asbel Ramos Faculty Sponsor: Dr. Dawn Weatherford and Dr. Theresa Garfield

"Does Naming Induce Anthropomorphism?" – Aisha Abdirahman, Payton Davis, Jude De La Cruz, Itiel Huerta, Henry Milner, Gabriella Pena, and Gabriella Ruiz *Faculty Sponsor: Dr. Alan Daniel*

> Register for This Session <u>https://tamusa.zoom.us/meeting/register/tJUpcuqhrTorGtwuTQzeTgvtA9kVKs6BEorf</u> Once you register, you will receive a link and password to the session; make sure to add to your calendar! If you do not have Zoom, be sure to click the "Sign up free" found in the link (see below) Evening Presentation Session

4:30 – 5:30 p.m.

Faculty Moderator: Dr. Scott Peters

"Towards implementing SDN-based security controls" – Michael Alicea Faculty Sponsor: Dr. Izzat Alsmadi

"Encouraging Secure Attachments for the Treatment of Hypersexual Disorders" – Cassandra Jones *Faculty Sponsor: Dr. Scott Peters*

"The Effects of Jim Crow in the Modern Era: From the Abolishment of Slavery to Mass Incarceration" - Dominique Katauskas

Faculty Sponsor: Dr. William Kiser

Register for This Session

https://tamusa.zoom.us/meeting/register/tJAqc-6sqzoiGdzPcAZhHTqeLDVoaFr4RNwt

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> **Evening Poster Session** 5:30 - 6:30 p.m.

Faculty Moderator: Dr. Theresa Garfield

"Comparing Interventions for Children with Autism Spectrum Disorders A Literature Review Synthesis" - Jessica (Asia) Steinhauser Faculty Sponsor: Dr. Theresa Garfield

"Special Education in the Time of COVID-19" - Lucia Luna and David Luna Faculty Sponsor: Dr. Theresa Garfield

"Nanotechnology mediated bee venom: applications in rheumatoid arthritis" - Lydia Smith Faculty Sponsor: Dr. Sayantan Das

"Is Moral Judgment the Key to Conflict Styles?" - Madison Valdez Faculty Sponsor: Dr. Amy Bohmann

Register for This Session

https://tamusa.zoom.us/meeting/register/tJAscOqsrjwvGtHZBgDguniF8Bs3aOme0yAo

Once you register, you will receive a link and password to the session; make sure to add to your calendar! If you do not have Zoom, be sure to click the "Sign up free" found in the link (see below)

	This meeting is for users with a Zoo	om account. New to Zoom? Sign up free.		
Торіс	Afternoon Poster Session	If you do not have a Zoom account, be si		
Description				
Time	Time Apr 16, 2021 03:00 PM in Central Time (US and Canada)			
First Name	•	Last Name*		
John Email Address*		Smith		
		Confirm Email Address*		
jsmith@youremail.com		jsmith@youremail.com		
		eiving this notice, be sure to sign up for Zoom		
	Register And then be s	sure to register		

Texas A&M University San Antonio

2021 Student Research Symposium Abstracts

		sentations	-
Student Names	Title	Faculty Sponsor	College
Michael Alicea	Towards implementing SDN-based security controls	Dr. Izzat Alsmadi	College of Business
up access controls, it is impo- intended. Additionally, those system resources. When cha ensure they still work as orig first, to create a program that	ontrol rules is a crucial part to ortant that they perform tests to access control rules should no nges are made to a network, it ginally intended. In this scope, at can automatically check for r ccess control rules based on re	to ensure that the policies they be conflict with each other and is important to test the access our thesis intends to accomplis ule misconfiguration in system	implement work as they should ultimately protect al control policies again to sh the following three goals: firewalls; second, to create
Melisa Arroyo	Increasing Public Access to Holistic Wellness through Social Media	Dr. Tamara Hinojosa	College of Education
a well-rounded lifestyle by a aspect. For this presentation Wellness (2012), which inclu (7) social, and (8) environme beneficial, most human serv expertise and neglect the oth dimensions of wellness using	species with numerous wants, r ddressing the multifaceted need h, holistic wellness is defined us ides (1) spiritual, (2) intellectua ental health. Although research ice professionals (e.g., doctors, her dimensions. This presentati g social media (i.e., YouTube, I e eight dimensions of wellness	ds of the entire person, rather in ing the University of Michigan I, (3) emotional, (4) physical, (5 indicates that integrating these counselors, financial advisors) on includes strategies to increa Facebook, and applications). A	than focusing on one specifies is Eight Dimensions of b) occupational, (6) financial e eight dimensions is b) focus on their areas of the public access to the eight ttendees will walk away with
Deborah Hoggard	The Inescapable Death of a Culture	Dr. Jackson Ayres	College of Arts and Sciences
Thomas uses the opposing f and death, his poem also bri language and culture continu- man who only speaks and w	's imagery relates to and explai forces within living creatures, n ings awareness to his own Wels ues to invade Wales. The imag rites in English. The essay cor elates time to destruction, and Encouraging Secure Attachments for the Treatment of Hypersexual Disorders	ature, and divine myths to disp sh culture being slowly extingu ery in this poem alludes to The acludes by realizing that there i	blay the balance between life ished as the English omas' own life as a Welsh s an inevitable shift in the
consequences (often interpe services based on attachmen suggest including hypersexu- clinical counseling field, a sy literature searches within the existing literature shows a se	t in people struggling to contro rsonal) from the behaviors the at theory has been suggested as al disorders to this list. To gaugestematic literature review was i e A&M-SA library database systemation of qualitative studies ar more effective than treatment	y employ to meet their urges. A effective for various mental has ge the progress of this treatmen nitiated. Two search algorithm tem and one for use on the Go ad aligns with the counseling th	Mental health counseling ealth issues. Recent findings nt strategy's influence in the is were designed, one for bogle Scholar platform. The nesis that nurturing healthy
	in the Modern Era: From the Abolishment of Slavery to Mass Incarceration		Sciences
opportunities, socio-econon key aspects that affect the B	how Jim Crow Era laws, despin nic status, and the racial profilir lack community: laws, politics, ses and Bureau of Justice statis	ng of African Americans. My a and socialization. Utilizing a v	rgument focuses on three ariety of primary sources,

that have made life arduous for African Americans, from the abolition of slavery in 1865 to the mass incarceration of				
		achieved in the United States, t		
		inrest proliferates throughout t		
	the complex history of race an	nd social justice as they pursue	a greater semblance of	
equality and equity.				
Victoria Lucero	Biological Branching	Dr. Kun Gou	College of Arts and	
	Patterns explained by		Sciences	
	Fractal Geometry Theory			
Biological spatial patterns ex	ist widely in nature, and this ki	ind of phenomena can be expla	ained by a mathematical	
theory called fractal geometr	y. This talk reviews current tr	ends of research in fractal geor	netry and examines how it	
can be applied to interpret o	rganic branching systems in na	uture. We will demonstrate how	v fractals are defined, and	
		ring in biological structures. Th		
		perties. This study would be n		
		ructure is achieved by fractal p		
Bruce McOsker	Legendre's Theorem	Dr. Jingbo Liu	College of Arts and	
bruce meosker	Legendre 3 Theorem	Di. Jingbo Litt	Sciences	
As part of our research into	the representation theory of ou	uadratic forms we take a look a		
		ms. Namely that the Diophant		
		ee and pairwise coprime intege		
		ot all have the same signbc, -		
		n alternate proof of this theore	em using Local-Global	
Principle, Hasse invariant an		1		
Jacob Monteverdi	Spanish Flu of 1918	Dr. Amy Porter	College of Arts and	
			Sciences	
		demic that ravaged the early me		
been overshadowed by the o	other major events of the 20th	century, especially World War	I. Since the end of the	
Spanish Flu epidemic in earl	y 1919, there has not been a di	sease that has swept across the	world in a similar way, until	
		the conditions, response and u		
		hived documents. Ultimately, t		
		just over a hundred years ago		
pandemics today.		,		
Caitlyn Nelson	A Conceptualization of	Dr. Ho Huynh	College of Arts and	
Galdyn i felooli	Physician Humility from	2011101100110	Sciences	
	the Patient's Perspective		Sciences	
Provious research indicates t		ive effects on patients' health i	ncluding increased trust and	
	1	1	0	
		arch also lacks insight into what $= 220$		
		= 326) were asked to describe		
humble, or not humble, doctors. Afterwards, a thematic analysis was used to create codes that were ultimately used to				
extrapolate overarching themes of humility from the patient's responses. From this analysis, five themes were revealed: Friendliness/Approachability, Patient focus, Respect for patient, Knowledge/Acknowledgement of				
limitations, and Mannerisms/ Nonverbal communication. These themes were also found to correlate with traditional				
themes of humility such as low self-focus and egalitarian beliefs.				
Chunyang Tang	Better system for	Dr. Young Lee	College of Business	
	detecting, revising and			
	confirming Java program			
	security bugs			
Finding a better tool to help		focus of recent decades. Static a	analysis programs for source	
		veloping software processes and		
		ootential Java software bugs or		
		d to understand and contain m		
		e easier-to-understand description		
	iene maanne meentoa with 1) al	. caster to anacistana acsempti		
		a mutant-based approach. Corr	mand-line-interface version	
		a mutant-based approach. Com	mand-line-interface version	

Poster Presentations			
Student Names	Title	Faculty Sponsor	College
Aisha Abdirahman, Payton	Does Naming Induce	Dr. Alan Daniel	College of Arts of Sciences
Davis, Jude De La Cruz,	Anthropomorphism?		_
Itiel Huerta, Henry Milner,			

Gabriella Pena, and				
Gabriella Ruiz				
	(UNE) is a newly discovered p			
	proper name over other identi-			
	chment as previous literature w			
	lency to ascribe human charact			
	que named entities. If naming a			
	wer propensity toward anthrop			
	should be viewed more anthro			
	hypotheses, with implications			
Andrew Klebahn	How Fictional Pandemics	Dr. Jackson Ayres	College of Arts and	
	Reflect a Real-life		Sciences	
	Understanding of the			
	Science of Illness			
	e's The Dead (1914) to understa			
	e Dead is revered as one of the			
	are, with its exploration of cog			
	hip amongst a pandemic made			
	lernist movement transformed			
	ting the romanticism of an arti	st's disease that ignites inwards	ness of an imaginative and	
experimental literary masterp				
Lucia Luna and David	Special Education in the	Dr. Theresa Garfield	College of Education	
Luna	Time of COVID-19			
	ities Act (IDEA), Part B Imple			
	al Agencies (LEAs) must prov			
	le FAPE, and can be applied to			
	onal shut down and now educa			
	receiving a meaningful academ			
	instruction is delivered, wheth			
	g that all students have the prop			
	overview of litigation and legis			
	r educators to provide legally n			
Shanna Nunez, Jessica	Building Bridges to	Dr. Dawn Weatherford	College of Arts and	
Lazcano Trevino,	Improve Social	and Dr. Theresa Garfield	Sciences	
Madeleine Anderson, and	Communication in			
Asbel Ramos	Children with Autism			
	Spectrum Disorder	1	1. 1 1	
	ing an intervention that has no			
	ommunication (e.g., avoiding e			
	in individuals with autism spec			
	eficits, our research aims to est	-		
intervention, Milo the humanoid robot. Recruited participants will take facial expression recognition and social				
understanding measures (i.e., Let's Face It! - Adapted; [LFI!-A] and the Social Responsiveness Scale-Second Edition				
[SRS-2]) before and after a six-week training session. We hypothesize the intervention will improve emotional				
understanding, depicted by greater post-intervention scores on the LFI-A! and the SRS-2, compared to baseline scores. As Milo is currently used by educators and interventionists, this study may substantiate its				
			nay substantiate its	
continued use and identify an	reas of improvement deemed r	nost beneficial for IwASD.	r	
Luis Perez	Predicting University	Dr. Amy Bohmann	College of Arts and	
	Students' Volunteerism		Sciences	
	teer behaviors in students? W	, i i i i i i i i i i i i i i i i i i i	01	
motivational factors measured via the Volunteer Functions Inventory (VFI; Clary et al., 1998) predict student				
volunteerism during a pandemic. A pilot study conducted with 46 participants demonstrated no statistical significance				
$(\chi^2 (9) = 5.46, p > .05)$ in motivational factors and volunteerism. A follow up study is being conducted that contains				
additional VFI factors and new demographic questions, based on the limitations of the pilot study.				
Tyler Rhea and Rafika	COVID Oral History	Dr. Sandra Lara	College of Arts and	
Islam	Project		Sciences	
Historians have placed the in	nfectious COVID-19 virus in th	he cannon of the 1918 Flu Pan	demic that also traveled	
worldwide and affected a large part of the global population. Coronavirus cases appeared in the United States starting				
	e, the pandemic forced society			
	espond to the virus, severely lir	* *		
· · · · ·	· , ,	~	1 1	

This session seeks to capture the effects of COVID-19 on the students and community that surrounds TAMUSA. What were the community's lived experiences? How did the 7th largest city in the United States survive and endure the Coronavirus pandemic? The works presented are part of a broader effort to build a digital depository to house					
COVID-19 artifacts. Alonna Rios, Audrie	The N250 as an Index of	Dr. Mario Baldassari	Caller a f Anta and		
Cabrera, and Nikai	Criminal Face Familiarity	Dr. Mano Baldassan	College of Arts and Sciences		
Hinojosa	Ciminar i acc i anniarity		sciences		
	to identify a culprit to the poli	ce due to fear, allegiance, or pl	nysical inability. We have		
		fest may be a useful lie detection			
identification, but the possibl	le use of the N250 as an index	of face familiarity has not bee	n tested in this context.		
recognition performance. Th paradigm. We instructed half	identification, but the possible use of the N250 as an index of face familiarity has not been tested in this context. Participants were shown a crime video twice to maximize exposure. Then, they studied a new face to a criterial recognition performance. These two faces were later repeatedly presented intermixed with ten new faces in an oddball paradigm. We instructed half of participants to "lie" by not identifying the culprit overtly. We anticipated N250				
		faces than to the new faces, wh	hich would enable		
	to criminal's face as lineup id				
Lydia Smith	Nanotechnology mediated bee venom: applications in	Dr. Sayantan Das	College of Arts and Sciences		
	rheumatoid arthritis		Sciences		
Bee venom has made medici		I Immunodeficiency Virus and c	ancer treatment However		
		Arthritis, in which this therap			
		significant obstacles are limitin			
		m negatively affects the surrou			
		target cells, reduces the poter			
		. Nanoparticles have a high su			
		lerive the venom into an effec			
		tudy contemporary nanopartic			
	velop a viable clinical treatment	nt for Rheumatoid Arthritis.			
Jessica (Asia) Steinhauser	Comparing Interventions	Dr. Theresa Garfield	College of Education		
	for Children with Autism				
	Spectrum Disorders A				
	Literature Review				
	Synthesis				
		ler that effects communication assive number of therapies and			
		l options that can be mixed and			
		natic literature review examine			
		ills in children with ASD. Wit			
		ee categories of interventions t			
	o ASD therapies: those done a	t school, those done with there	apists, and medical		
interventions.					
Gabrielle Thompson, Dylan Escalanta, Nadia	Go Green: The	Dr. Dawn Weatherford	College of Arts and		
Dylan Escalante, Nadia Padron Nikai Hinoiosa	Psychological and Physiological Benefits of		Sciences		
Padron, Nikai Hinojosa, Cody Lace, Joanna	Physiological Benefits of Natural Environments				
Martinez Gutierrez, Mark					
Torres, and Payton Davis					
	singly urbanized, natural envir	onments may enhance learning	g when purposefully		
As the world becomes increasingly urbanized, natural environments may enhance learning when purposefully integrated into academic spaces. Previous research suggests that natural environments benefit a wide range of					
cognitive outcomes such as the Attention Restoration Theory (ART). ART suggests that nature restores more goal-					
directed cognitive processes that require substantial attentional and metabolic resources. In order to test ART, fifty					
participants will complete cognitive tests and provide salivary samples while sitting in an indoor space covered with or					
without natural features. We predict that participants in natural environments will show a decrease in stress level					
indicators and improved performance on cognitive tasks. Potential results could inform substantial changes to indoor					
learning environments. Classrooms and offices often require an intense amount of focus and attention. If educators					
	atural features in their focus in	tended spaces, individuals cou	lld benefit from the effects		
of ART.	T 3 F 1 T 1				
Madison Valdez	Is Moral Judgment the Key	Dr. Amy Bohmann	College of Arts and		
	to Conflict Styles?	<u> </u>	Sciences		
Having an adaptive conflict style is crucial for all fields, as human interactions are very important. An increase in stress and anxiety, with a decrease in productivity and satisfaction can be the result of managing conflict poorly.					
		developmental stages and conf			
I Tevrous studies flave beell U			and mananing styles (GHOW &		
7					

Ding, 2002). Their findings showed that stages of moral development indicated a significant association with conflict styles. Therefore, the present study investigates the relationship between moral development and conflict styles to further understand conflict resolution in relationships. Participants will complete the Rahim Organizational Conflict Inventory-II scores (ROCI-II; Rahim, 1983) and the Visions of Morality Scale (VMS; Shelton & McAdams, 1990). We expect to better understand whether an advanced moral development is related to preferred conflict style by examining correlations between moral development and the five conflict styles measured on Rahim's scale. John Whitehorn and Dual Task Facilitation May Dr. Dawn Weatherford College of Arts and Rolando Guerrero Improve the Identification Sciences Camacho of Missing Persons Police commonly call upon the public to aid in the search for missing persons by posting picture/video alerts. However, previous research suggests these alerts are ineffective, unless participants devote large amounts of attention to a strategic search at the expense of other goals. Nevertheless, creating a dual task for a related target (i.e., another rare event) might enhance attentional focus and increase the likelihood of identifying a missing persons. Across 80 trials, participants will complete an ID matching task to determine if presented IDs are authentic or fake. Then, participants will perform the same task while also searching for a missing person presented in an alert. We predict that participants will identify more fake IDs and missing persons when both tasks are combined, compared to the ID matching task alone. This experiment may aid police in determining how to implement effective missing person's

alerts.