

RPI S.T.E.A.M.M. SUMMER PROGRAM

Date: July 23, 2018 – August 3, 2018 | Starting: 9:00AM each day | Ending: 4:00PM each day

Location: Rensselaer Polytechnic Institute (Jonsson Engineering Center 3210 and Walker 5113)

Facilitators: Emily Liu, Jasmine Yang, Julia Witham

| Agenda | | | |
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| DAY | | SUBJECT | SPEAKER |
| Monday July 23 JEC 3210 | AM | Introduction: Explanation of projects and their goals, Team formation, Future lectures, and Safety/visitor guidelines. | Dr. Emily Liu Associate Professor, Mechanical Aerospace and Nuclear Engineering Jasmine Yang Senior Institutional Research Analyst Sam Chiappone Dir. Manufacturing Innovation |
| | | Making Technology Real: Digital X-ray Imaging and Advanced Manufacturing in Healthcare Applications. | Dr. Thomas Feist Former General Manager of Advanced Manufacturing Engineering and Global X-ray Detectors, GE Healthcare |
| | PM | Inventor's Studio Experience and Project Development: Learn, Design, and Make products for group project. Short tutorial lectures and lab tours will be given throughout the session. Experienced TA/Mentor will direct and lead each team. | Dr. Asish Ghosh and 6 Teaching Assistants Professor of Practice, Mechanical Aerospace and Nuclear Engineering |
| Tuesday July 24 JEC 3210 | AM | A Journey From Engineer to Writer: Engineering is a flexible career with opportunities in many areas of business, government, and education. In this talk, I will recount my personal journey and touch on diverse areas of engineering. | Dr. Deborah A. Kaminski Professor Emerita of Mechanical Engineering |
| | PM | Cognitive and Immersive Systems Lab (CISL): Formed by a partnership of IBM and RPI, CISL targets to build the next generation Cognitive and Immersive Situations Room to augment group intelligence. | Dr. Hui Su Director of Cognitive and Immersive Systems Lab (CISL), IBM and RPI |
| | | Inventor's Studio Experience and Project Development: Learn, Design, and Make products for group project. Short tutorial lectures and lab tours will be given throughout the session. Experienced TA/Mentor will direct and lead each team. | Dr. Asish Ghosh and 6 Teaching Assistants Professor of Practice, Mechanical Aerospace and Nuclear Engineering |
| Wednesday July 25 Walker 5113 | AM | Changing Materials Properties: Bouncing Superballs: Explore how temperature changes the properties of bouncing superballs. Learn about the structure of polymers and what makes superballs bounce so high. | Dr. Daniel J. Lewis Associate Professor, Materials Science and Engineering |
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| Thursday July 26 Walker 5113 | AM | Creativity – Connecting the Dots: A talk designed to encourage young STEAMM minds to think creatively which will cover wide topics including 3D printing, surgical training, and graphene applications. | Dr. Johnson Samuel Associate Professor, Mechanical Aerospace and Nuclear Engineering |
| | | Balance Your-ish: Explore how to manage competing priorities and explore ways to identify and cope with daily stressors. | Nii Opore-Addo, MPH Health Educator, Student Health Services |



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| Friday July 27 | AM | General Electric Field Trip: <i>An in-person look/feel at GE Healthcare.</i> | Contact: Dr. Steven F Hanagan <i>Plant Manager, GE Healthcare</i> |
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| Monday July 30 | AM | From Stiffness to Sickness: How Mechanical Stiffness is Associated with Disease: <i>We will explore the role of mechanical stiffness in healthy and diseased tissue conditions.</i> | Dr. Kristen L. Mills <i>Assistant Professor, Mechanical Aerospace and Nuclear Engineering</i> |
| | | Selective Schools: What are they looking for? <i>The 5 areas of a student's application that many selective colleges look at it during their review process.</i> | Ulysses deArmas <i>Associate Director of Undergraduate Admissions</i> |
| | Walker 5113 | Searching for a College or University That's Right for Me: <i>Using the federal government's database to locate educational institutions that meet your needs.</i> | Jack Mahoney <i>Assistant Vice Provost for Academic and Resource Planning at the University at Albany</i> |
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| Tuesday July 31 | AM | We are Stardust – it's More Insignificant than it Sounds: <i>The invisible universe and our place in it, including the philosophy and diverse fields of science that try to understand how we got here.</i> | Dr. Ethan Brown <i>Assistant Professor, Physics, Applied Physics & Astronomy</i> |
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| Wednesday August 1 | AM | History and Culture of Games and Game Storytelling: <i>Surveys 5000 years of game history, from ancient Sumeria to the latest next-generation consoles and MMOGs. And an overview of the art of effective story development.</i> | Dr. Michael F Lynch <i>Lecturer, Communication and Media, Games and Simulation Arts and Sciences (GSAS) program</i> |
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| DAY | | SUBJECT | SPEAKER |
| Thursday August 2 Walker 5113 | AM | Engineering Ecosystems: <i>James Davis will discuss his experiences as an engineer, talk about aquaponics, and help students create their own systems.</i> | Dr. James Houston Davis <i>Lead Developer, Science & Technology Studies</i> |
| | | High School to College Transition: <i>In this workshop, we will review Rensselaer incoming freshman profile and explore high school to college transition process by student experience.</i> | Jasmine Yang <i>Senior Institutional Research Analyst</i> Julia Witham <i>Sophomore Student, Nuclear Engineering</i> |
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| Friday August 3 Walker 5113 | AM | ALL FAMILY MEMBERS AND FRIENDS ARE WELCOME | |
| | | 9AM-11am: <i>Project Demonstration and Award Ceremony</i> | |
| | | 11-12noon: Reception – <i>Eat, drink, chat and enjoy!</i> | |
| | PM | 12-1pm: <i>Registered students lunch at SAGE.</i> | |
| 1-4pm: <i>Discussions, Questions, Information, Adjourn.</i> | | | |

