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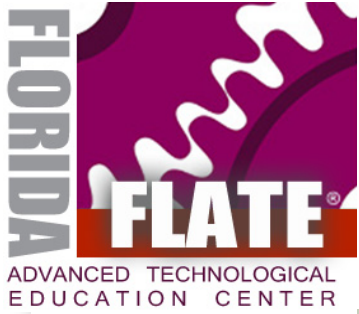
Robotics Summer Camps Best Practice Panel

Florida Association for Career & Technical Education
[Annual Conference & Trade Show](#)

November 16th, 2020, 4:45 - 5:30 pm



Hosts



Dr. Marilyn Barger
Director



Danielly Orozco-Cole
CTE Program Manager

Florida Advanced Technological Education Center
(FLATE)



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FAITE

Florida Association for Industrial and Technical Educators-
[FAITE](#)

- Non-profit professional organization which works with FACTE collectively toward the advancement & enhancement of technical and industrial education throughout Florida.
- Membership in FAITE is open to all Industrial & Technical educators.



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Agenda

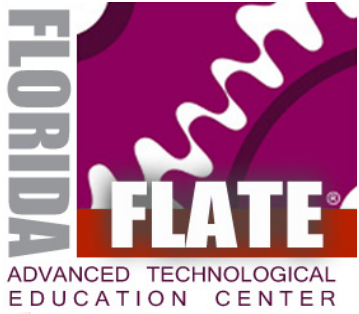
- Panelists' Introduction
- *Past – Present: FLATE*
- *Description-Summer Robotics camps: Hillsborough Community Colleges (HCC) & Florida State University (FSU) iCamp*
- *Planning: Curriculum, material/equipment, budget, marketing, etc.*
- *Camp – Challenges*
- *Follow up activities, impact*
- Q & A



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Panelists



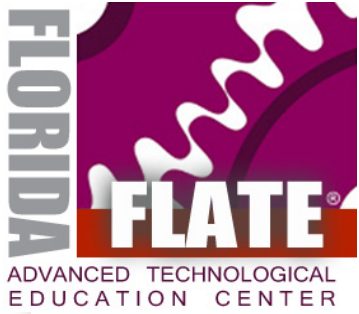
Shirley Dobbins
Engineering Technology
Department Chair
Hillsborough Community College
(HCC)



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Panelists



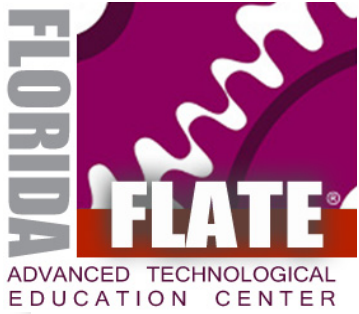
Desh Bagley
Camp Coordinator/ instructor
Hillsborough Community College
TechPlayzone, Founder & CEO



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Panelists



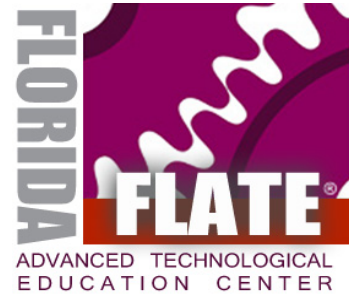
Ebrahim Randeree
Associate Dean
Florida State University-FSU
iCamp



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FLATE-Past & Present-Who we are



Florida Advanced Technological Education Center



Strengthening Career & Technical Education for
the 21st Century Act (Perkins V), State Leadership



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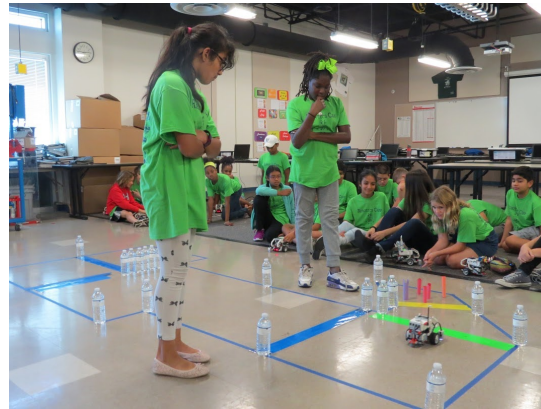




FLATE Past - Present: Robotics Camps 2006-2019

Goal

- Introduce campers to STEM/Robotics career paths
- Understand their applications in modern manufacturing
- Encourage creative/critical thinking, problem solving, communication, & teamwork skills applied to real-world problems.



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FLATE Past - Present: Robotics Camps History

- Since 2005: Supported more than **1,450** middle & high school students in more than **90** week-long STEM robotic camps in Florida.
- Serving mainstream & special student populations
- Mentoring new camp programs across the state
- Engaging many community and professional partners
- Growing the pipeline of manufacturing and STEM professional



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FLATE Camp Resources 2

WHAT'S MADE IN FLORIDA? YOU'D BE SURPRISED!
High Wages! The average annual salary in the manufacturing field is \$48,000!

Recruiting and Retaining Girls in STEM
a FLATE Best Practices Guide
www.fl-ate.org

Helping Girls Believe They Can Succeed in STEM Courses and Careers

FLATE's wiki www.madeinflorida.org
...full of great FREE RESOURCES for you!

(CLICK ON IMAGES BELOW)

Made in Florida STEM Lesson Plans
Career Education Resources
Modules for Advanced Technological Education
The Toothpick Factory
Student Activity Sheets
Industry Tour Resources
FLATE Presentations, Publications, Hearings & Webinars
Profession Development Opportunities for Educators
Camp Resources
Read FLATE's Monthly Newsletter!
FLDOE Career resources
Learn more about Career Pathways!
Florida Association for FAITE

Middle and High School Summer Camps Information, Camp Curriculum & Resources Sponsored by FLATE

HCC-FLATE SUMMER ROBOTICS CAMPS
July 6-July 27, 2020
Virtual Camp - Internet and ZOOM required

More Info at: <http://fl-ate.org/programs/summer-camps>

Camp Flyer & Registration Forms
[2020 Summer Robotics Camp Flyer](#)

FLATE - FESC ENERGY CAMPS
The FLATE-FESC Energy Camps are a partnership between the Hillsborough School District and FLATE and is open only to students in the district AVID program. The 5-day camp curriculum is available for download below in the Camp in a Box pdf file.

ENERGY CAMP RESOURCES
[Energy Camp in a Box](#) (pdf to download and print)

ROBOTIC CAMP RESOURCES CAMP SURVIVAL GUIDE FLATE Best Practice Guide for Robotics Camps



Robotics Camp Guide Available [online](#)

LEGO ALL NEW CURRICULUM FOR 2019! MINDSTORMS

FLATE's ROBOTICS CAMP CURRICULUM is available **HERE!!** (free downloads)

INTRO CAMP CURRICULUM (2 files)
[FLATE Intro Robotic Camp Curriculum Pack Part 1](#)
[FLATE Intro Robotics Camp Teacher Documents Part 2](#)

INTERMEDIATE CAMP CURRICULUM
[FLATE Intermediate Robotic Camp Challenges](#)

<http://madeinflorida.org/>

www.flate.pbwiki.com



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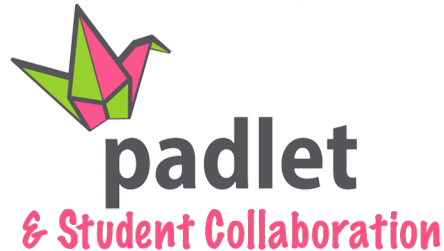
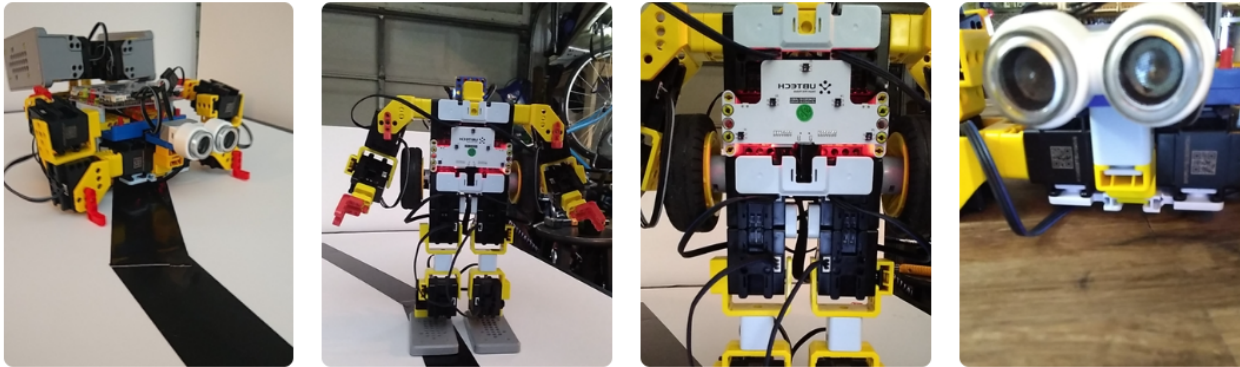
Robotics Camps: Panel Discussion

- Camps description
- Planning:
 - Material, equipment, instructors
 - Budget, Sponsors
 - Marketing, registration
- Challenges
- End of camp activities & Follow up
- Q & A



Robotics Camps: Panel Discussion Hillsborough Community College- HCC

- Camp Description, Curriculum



HCC & FLATE Robotics & Engineering Summer Camps

VIRTUAL CAMPS for MIDDLE SCHOOL

June 15th – Intro Robotics Camp

June 22nd – Intermediate Robotics Camp



Registration Forms: www.fl-ate.org/projects/camps.html

Please do NOT drop off Registration Forms



Please fill out camp forms and mail them:

HCC Brandon Campus
c/o Desh Bagley Box 23
10451 Nancy Watkins Drive
Tampa, FL 33619

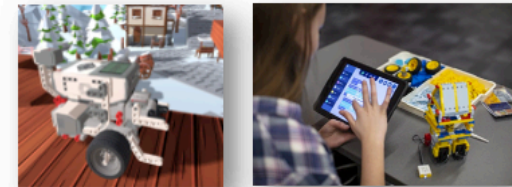
Camp Details: Virtual Camp for HCC Brandon Campus
Monday – Friday 9:00am – 12noon OR 1:00pm – 4:00pm
Costs: **\$50 per week for VIRTUAL EV3 Camps**
\$175 per week for Camp ASPIRE (robot kit included)
*(**all camp fees are nonrefundable)*

For camp information and payment contact:
Desh Bagley dbagley5@hccfl.edu (813) 453-8612

CAMP ASPIRE – Robotic Kit Included

June 29th – All Girls Camp Aspire

July 6th – High School Advanced Camp Aspire



At-home Summer Programs In Robotics & Engineering for Middle and High School Students.
Ask about need-based scholarships.



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Robotics Camps: Panel Discussion Hillsborough Community College- HCC

- Planning:
 - Material, equipment, instructors
 - Budget, sponsors
 - Marketing, registration, logistics



HCC ROBOT VIRTUAL WORLDS
SUMMER CAMP 2020

HILLSBOROUGH
Community College

Thank you to our Sponsors

FLATE
BAMA
Hillsborough County
Florida Department of Education

Virtual BRC
for Robot Virtual Worlds

Intro to EV3 Challenge Pack
Attempt all of the challenges from the
Intro to EV3 course.

SUMMER MANUFACTURING
CAMP



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Robotics Camps: Panel Discussion

Florida State University-FSU iCamp
College of Communication & Information iCAMP



- Camp Description, Curriculum

Week 1
6/15-6/19

Web Development

Learn the basics of designing a website, including making websites usable and securing a domain.

Week 2
6/22-6/26

Digital Media & Videography

Learn how to create eye catching digital media for a variety of platforms with accessible and easy-to-use tools.

Week 3
7/6-7/10

Medical & Health IT

Learn about the resources, devices, and methods required to acquire, store, retrieve, and use information and technologies in health fields.

Week 4
7/13-7/17

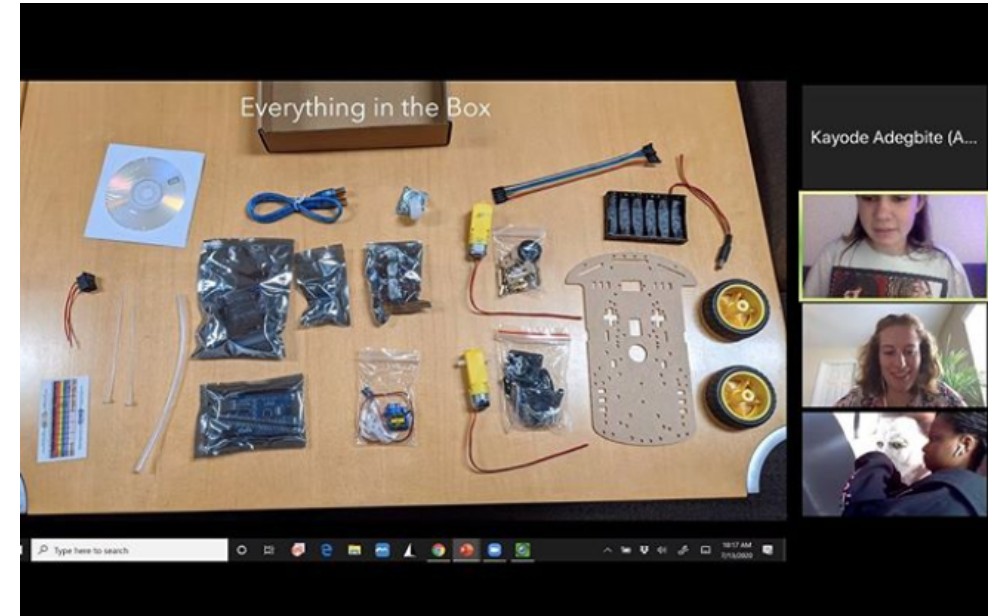
Robotics

Learn about the branch of technology that deals with the design, construction, operation, and application of robots.

Week 5
7/20-24

Mobile Apps

Learn mobile app development using a design thinking process to create fun apps to share with others.



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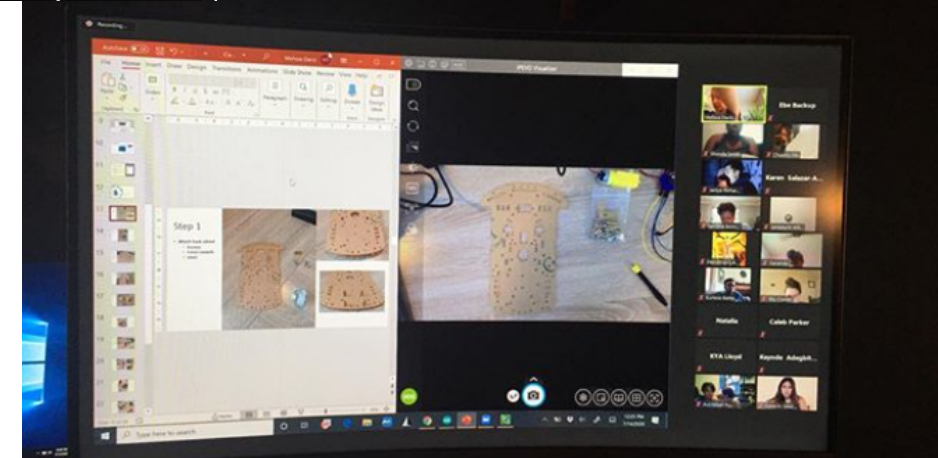
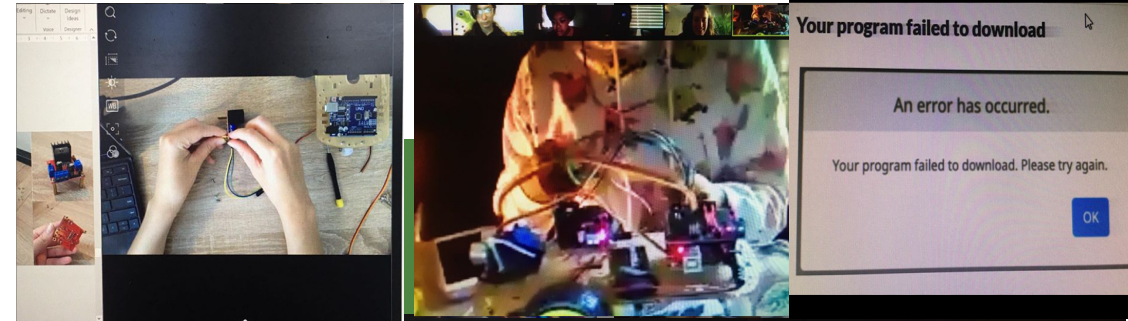


Robotics Camps: Panel Discussion

Florida State University-FSU iCamp



- Planning:
 - Material, equipment, instructors
 - Budget, sponsors
 - Marketing, registration, logistics



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Robotics Camps: Panel Discussion

Florida State University-FSU iCamp



- Challenges
- End of camp activities & Follow up
- Camp Impact
 - ✓ One student accepted into Honors program at University of Tampa
 - ✓ Two students are attending Tallahassee Community College (tech majors)
 - ✓ Student accepted to FSU CARE program (for first generation college students)
 - ✓ Student working with FAMU's REAP program to conduct research
 - ✓ Student accepted to Rensselaer Polytechnic Institute in Troy, NY to study physics
 - ✓ Two students participating in coding internships
 - ✓ Student switching to IT/robotics and becoming president of her school's honor society
 - ✓ Year 3 had 15 returning students (still in HS)



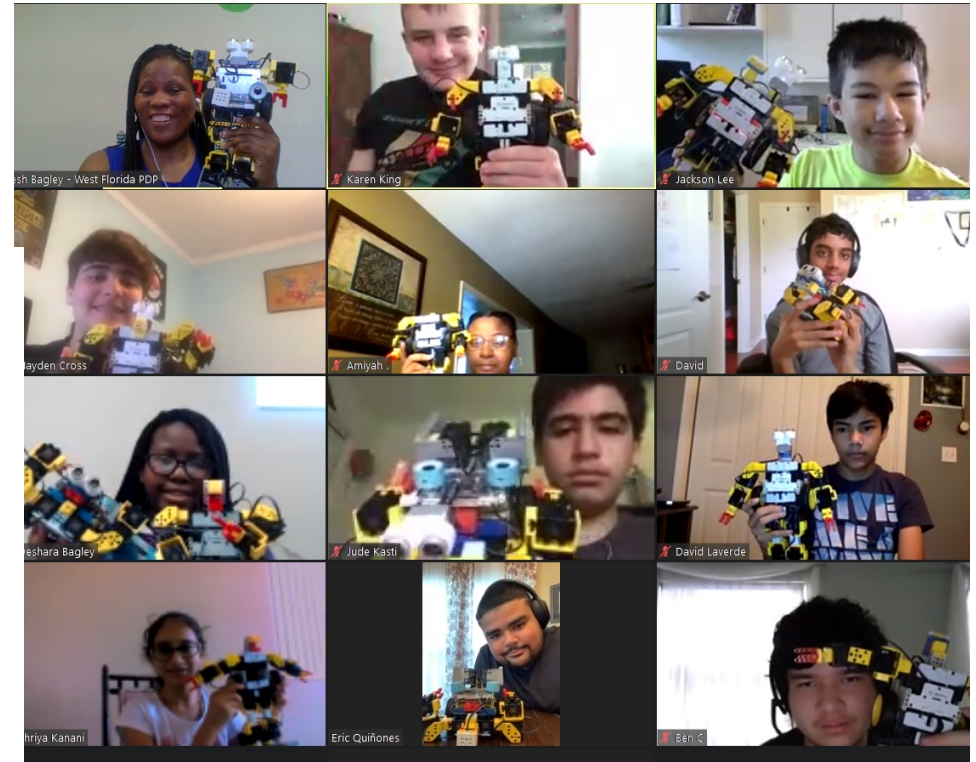
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Robotics Camps: Panel Discussion *Hillsborough Community College- HCC*

- Challenges
- End of camp activities & Follow up
- Camp Impact
 - ✓ 30% of high school campers were previously middle school campers
 - ✓ 95% of campers state increased interest in careers in manufacturing
 - ✓ 100% attendance among virtual campers during all four weeks of virtual camp
 - ✓ 100% of campers stated that they understood STEM courses needed for engineering and technology careers



“I wanted reach out to you and let you know how grateful and thankful I am that HCC is hosting the virtual camp, and that you are leading it! I can honestly say that I have never seen Alex as enthusiastic and engaged in robotics as he has been this week”



Questions?



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Thank You!

Florida Advanced Technological Education Center-FLATE

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HCC's Camp Coordinator/ instructor
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Florida State University-FSU iCamp

Ebrahim Randeree, ebe.randeree@cci.fsu.edu
Associate Dean



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