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June 10, 2015 **TEC-SMART** 345 Hermes Road, Malta NY

June 10, 2015 8:30 AM—10:30 AM

Introduction and Welcome

Joseph P. Dragone, Ph.D., Superintendent of Schools

Ballston Spa Central School District

Andrew J. Matonak, Ed.D., President

Hudson Valley Community College

Welcome from Sponsors

David M. Stackrow, Board Chairman,

Capital District Transportation Authority (CDTA)

Derek Basile, Vice President of Finance & CFO

Finch Paper, LLC

Speakers

Hon. Carrie Woerner, Assemblywoman

NYS Assembly District 113

Marilyn J. Smith, MPA, Economic Development Liaison

Congressman Paul Tonko (NY-20)

Emily Reilly, Senior Director of Human Resources

GLOBALFOUNDRIES

Johanna Duncan-Poitier, Senior Vice Chancellor for Community Colleges and the Education Pipeline State University of New York (SUNY)

JPMorgan Chase & Co. Announcement

David Horan, Regional Executive, Middle Market Banking in Western and Eastern Upstate New York/Western New England

Scholarship Presentations

Katie Lesko, Senior Associate Director of Admissions

Siena College

Greg Laird, Vice President and Principal **Jeffrey S. Frankel**, Vice President and Principal

Astria Solutions Group

Reflections

Tyler Schmidt, Student Representative **Darrel Ackroyd**, Senior Teacher

Distribution of Cords

Laurel Logan-King, Assistant Superintendent for Curriculum

Diane Irwin, Program Director, Clean Technologies & Sustainable Industries Early College High School

Theresa Lewis, Junior and Senior Teacher

Ballston Spa Central School District

Junior & Senior Capstone Project Exhibition, Networking & Refreshments

Atrium



Board of Champions

Mary Burke

Manager of Special Projects, NYSERDA

Robert Callender Vice President, TRC

Joseph P. Dragone, Ph.D.
Superintendent of Schools, Ballston Spa Central School District

Michael J. Hickey

Executive Director and Executive in Residence Center for Innovation and Entrepreneurship, Siena College

Michael Ladd

Account Executive, Cisco

John LaRow Vice President, Gilbane

Laurel Logan-King

Assistant Superintendent for Curriculum, Assessment & Pupil Services
Ballston Spa Central School District

Andrew J. Matonak, Ed.D.

President, Hudson Valley Community College

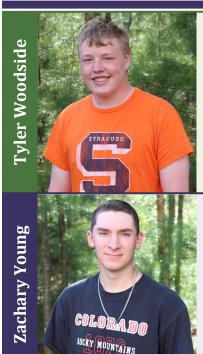
Daniel T. Pickett III CEO, nfrastructure

Mike Russo
US Government Relations & Regulatory Affairs,
GLOBALFOUNDRIES

F. Michael Tucker
Past President, Center for Economic Growth

Daniel Woodside
Executive Principal/Vice President, CSArch





Home School: Fast Greenbush CSD

Future Plans:

SUNY Adirondack

Major: Geology

Capstone Project:

Graphene Gas Cap MFR. CO.: Cone shaped device to block and disperse gasses from a large mining explosion.

Home School: East Greenbush CSD

Future Plans:

Hudson Valley Community College

Capstone Project:

Super-Man Undercoating: Vehicle undercoating infused with graphene for a stronger coating to prevent rust.

Thank You to our Sponsors





Ballston Spa Central School District Board of Education

Kevin Schaefer, *President*Susan Filburn
Nancy Fodera
Tony Leva

Daniel Cramer, *Vice President*Jeanne Obermayer
Christine Richardson



2015 Graduates

Austin Antis Sarah Meisel
Michael Bove Robert Merrill
Alexander Brown Jason Mertens
Anthony Carroll Anthony Meyre
Riley Cook Isaiah Minick
Kelshonda Crawford Michael Mix

Alex Dantz

Kali DeMarco

Alex Demetreus

James Foote

Jacob Fortin

Christian Mulrain

Anthony Neach

Michael Nitchman

John W. Oevering

Kayla Orapello

Chris Fritch Michael Petruccelli
David Gergich Isabel Pottinger
August Gerrain Adam Rasmussen
Domonic Graham Michaela Regner
Matthew Hessney Travis Rougie

Edwin Hicks Dylan Schermerhorn

James Hilson Tyler Schmidt
Taylor Hines Stephen Smero
Caleb Hulett Andrew Starace
William Joslyn Kevin Terleckey
Dalton Kayser Danielle Touponse

Ethan Kipp Morgan Treacy
Adam Kump Alex Turoski

Anthony Levine Alexis VanBuren
Charles Levine Kayla VanBuren

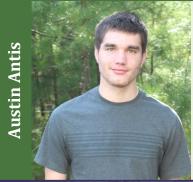
Noah Marek Ben Walker

Spencer Mayo

Noah Maziejka

Tyler Woodside

Zachary Young



Michael Bove

<u>Alexander Brown</u>

Anthony Carroll

Home School: Fonda-Fultonville CSD

Future Plans:

Hudson Valley Community College

Capstone Project:

System Scanner Problem Solver: Screen incorporated in your car to let you know when problems arise with your car and can advise you.



Home School: Mechanicville CSD

Future Plans: Siena College

Major:

Finance/Political Science

Capstone Project:

NanoVote: Voting machines connected to servers that offer real time results of

elections.

Home School: Stillwater CSD

Future Plans:

Hudson Valley Community College

Capstone Project:

Nano-Military Solutions: Lightweight shirt & suit worn by military personnel in battle to track body movement, impact, and vitals of soldiers to a command

center.

Home School: Ballston Spa CSD

Future Plans:

SUNY Polytechnic Institute

Major:

Mechanical Engineering Technology

Capstone Project:

Active Air Suspension Components:

Bicycle suspension support system for a smoother and safer ride over various terrains

Home School: East Greenbush

Future Plans: SUNY Oswego

Major:

Business Communications and Marketing

Capstone Project:

HeadSmart: Nanowires incorporated in a headband to measure impact of soccer players head ball and relay information wirelessly to trainer or coach for possible concussion.

Home School: Burnt Hills-Ballston Lake CSD

Future Plans:

Western New England University

Major:

Biomedical Engineering

Capstone Project:

M.y S.olution: Multifaceted treatment to reverse the demyelination process caused by MS and protect the areas that

have been regenerated.

Home School: Burnt Hills-Ballston Lake CSD

Future Plans:

Western New England University

Major:

Biomedical Engineering

Capstone Project:

Chip-Insula: Bio-artificial pancreas-on-

a-chip.

Home School: Ballston Spa CSD

Future Plans:

University of Rochester

Major:

Chemical Engineering

Capstone Project:

SmartShield: Utilizing nanoparticle coatings on windshields in order to enhance durability, appearance, and

benefit to the driver.



Kayla VanBuren



Ben Walker

Kevin Terleckey

Danielle Touponse

Home School: Saratoga CSD

Future Plans:

Keene State College

Major: Geology

Capstone Project:

SilverScavenger: Water purification

system for wells that uses

nanoscavengers to eliminate bacteria.

Home School: Broadalbin-Perth CSD

Future Plans: Utica College

Major: History

Capstone Project:

FaceSaver: Slow release brake system for Longboards that help eliminate speed wobbles, crashes, and injuries.

Home School: Catskill CSD

Future Plans:

Hudson Valley Community College

Major:

Environmental Science

Capstone Project:

Synthetic Insulin Receptor: Device for

humans with type II diabetes.

Home School: Ballston Spa CSD

Future Plans: SUNY Oswego

Major: Zoology

Capstone Project:

ReinventStem: Buckyballs with engineered DNA to use to retrieve stem cells for medical research & testing.

Home School: Fonda-Fultonville CSD

Future Plans:

Hudson Valley Community College

Major:

Mechanical Engineering Technology

Capstone Project:

Nano Carbon Parts: Carbon nanotube infused R/C parts for increased strength

and durability.

Home School: Ballston Spa CSD

Future Plans:

Hudson Valley Community College

Capstone Project:

TechnoSafe: Car monitoring system to provide information about the vehicle & its passengers and in the event of an accident it will provide increased data to emergency personnel.

Home School: Stillwater CSD

Future Plans:

Hudson Valley Community College

Major:

Network Engineering

Capstone Project:

Hydroelekraphobic: Hydrophobic electronic computer parts from laser etching patterns similar to the petal of

the lotus plant.

Home School: Mechanicville CSD

Future Plans:

Green Mountain College

Maior:

Renewable Energies & Ecological Design

Capstone Project:

N.P.B.: Graphene infused particle board

for building.

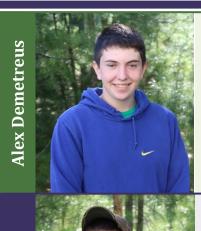


Alex Dantz









Home School: Ballston Spa CSD

Future Plans:

Hudson Valley Community College

Major:

Architecture Technologies

Capstone Project:

Nano free: Water purifier that uses

nano bubbles.

Home School: Fort Ann CSD

Future Plans:

SUNY Adirondack

Major:

Medical Engineering Technologies

Capstone Project:

G-Suit: Motorcycle suit that incorporates nanoparticles of graphene to protect

riders.

Home School: Saratoga CSD

Future Plans:

Lyndon State College

Major:

Broadcast/Meteorology

Capstone Project:

SmartCollarK9: Pet collar incorporating GPS, medical history, contact information, nearest vet offices, remote electric fence, and LED stress display level for the most

beloved family pets.

Home School: Schuylerville CSD

Future Plans:

St. John Fisher College

Major:

Accounting/Finance

Capstone Project:

Duraspin Golf: Nano-material coating for golf wedges to prolong the life & effectiveness of wedge face grooves.

Home School: Ballston Spa CSD

Future Plans:

Motlow Community College

Major:

Physical Science

Capstone Project:

EverGlass: Nanoinfused glass that has self-healing qualities for electronic

devices.

Home School: South Glens Falls CSD

Future Plans:

Clarkson University

Major:

Mechanical Engineering

Capstone Project:

Nexhaust: CO2 scrubber for car exhaust systems that attaches to any tailpipe and turns CO2 into less harmful sodium

carbonate.

Home School: Ballston Spa CSD

Future Plans:

The College of Saint Rose

Major:

Music Industry

Capstone Project:

Patches 2.0: Medicine patch coated with a dry medicine or vaccine that will reduce both the pain of shots and price.

Home School: Saratoga CSD

Future Plans:

University of South Carolina

Major:

Computer Engineering

Capstone Project:

BotaBandage: Nanoparticles embedded into bandages to reduce the amount of

healing time.



Dylan Schermerhorn





BALLSTON SPA



acob Fortin

James Foote

Adam Rasmussen

Michaela Regner

Home School: Catskill CSD

Future Plans:

Hudson Valley Community College

Major:

Electrical Construction and Maintenance

Capstone Project:

Eco system saving blade: Frequency

turbine blade to save lives.

Home School: Albany CSD

Future Plans: Cornell

Capstone Project:

Juhend NanoInjection: The buckyballs will be injected into the patient and allowed to travel to the target cell. The magnet will cause the buckyballs to decompose and will be benign in the

patient's system.

Home School: Broadalbin-Perth CSD

Future Plans:

Hudson Valley Community College

Major:

Civil Engineering

Capstone Project:

TEG30-CREATOR: Small generator that produces up to 30 volts of electricity for

electronics while camping.

Home School: South Glens Falls CSD

Future Plans:

SUNY Adirondack

Major:

Forest Tech

Capstone Project:

Moop Hoop: Magnetic therapy hula

hoop for natural healing.

Home School: Schalmont CSD

Future Plans:

Hudson Valley Community College

Major:

Civil Engineering

Capstone Project:

CNTcrete: Carbon nanotube infused concrete to improve strength and

flexibility.

Home School: Coxsackie-Athens CSD

Future Plans:

SUNY Plattsburgh

Capstone Project:

Augmentor 3.0: Athletic performance shirt that tracks muscle movement and contractions to obtain maximum performance and reduce injury.

Home School: Ballston Spa CSD

Future Plans:

US Army National Guard

Capstone Project:

Projection 3.0: Holographic phone

Home School: East Greenbush CSD

Future Plans:

Hudson Valley Community College

Major:

Individual Studies

Capstone Project:

The Panacea System: Surgical system incorporating nanobots and swarm robotics to precisely manipulate the atomic bonds in the body to repair, remove and alter various body ailments.



August Gerrain





Edwin Hicks

Home School: Burnt Hills-Ballston Lake CSD

Future Plans: Binghamton

Capstone Project:

Ecoskyn: Conductive paint for trains to produce and sustain energy for

transportation.



James Hilson

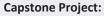
Taylor Hines

Caleb Hulett

Home School: Ballston Spa CSD

Future Plans:

US Army National Guard



NanoBall: Airless soccer ball



Home School: Mechanicville CSD

Future Plans:

SUNY Polytechnic Institute

Major:

Electrical Engineering Technology

Capstone Project:

MightyWire: Graphene coated braces that will increase strength and reduce

the size of braces.



Home School: Ballston Spa CSD

Future Plans:

Monroe Community College

Major: Nursing

Capstone Project:

Relay: Sensory system to recognize possible "panic" levels that could be used to recognize PTSD or other panic disorders.

Home School: Scotia Glenville CSD

Future Plans:

United States Army

Capstone Project:

Nano beats by Neach: Nano tech speakers increasing sound quality.

Home School: Ballston Spa CSD

Future Plans:

SUNY Adirondack & Paul Smiths College

Major:

Wildlife Management

Capstone Project:

NanoLine: Biodegradable fishing line reinforced with carbon nanotubes.

Home School: Fonda-Fultonville CSD

Future Plans: Utica College

Major:

Cyber Security

Capstone Project:

Hydra Fire: Fire-fighting Smart helmet to increase safety of the fireman, efficiency of fighting fires and to reduce line of

duty deaths.

Home School: Broadalbin-Perth CSD

Future Plans:

University at Albany

Major:

Prelaw

Capstone Project:

NanOven: Oven with nanosensors and cantilevers that accurately sense & control heat remotely. It is self-cleaning with a super hydrophobic spray which can be controlled by Bluetooth which can cool to fridge temperature.



Michael Nitchman





Isaiah Minick

Michael Mix

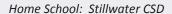
Home School: Ballston Spa CSD

Future Plans:

Hudson Valley Community College

Capstone Project:

Nano Pack: Hiking backpack that incorporates carbon nanotubes in the shell to increase durability while decreasing weight.



Future Plans: SUNY Delhi

Major:

Business and Technological Management

Capstone Project:

Bye Rot: Coating for car tires to help

fight oxidation and dry rot.

Home School: Ballston Spa CSD

Future Plans: Employment

Capstone Project:

Nano processor: Faster processor for

computers.

Home School: Ballston Spa CSD

Future Plans:

Hudson Valley Community College

Major:

Computer Information Systems

Capstone Project:

Quantum Leap Computing: Computer that uses liquid helium in a refrigeration unit to cool the computer and allow faster processing.

Home School: Saratoga CSD

Future Plans: SUNY Adirondack

Capstone Project:

Lincoln Nano Candles: Nano capsule

infused candles.



Home School: Ballston Spa CSD

Future Plans:

Hudson Valley Community College

Major:

Mechanical Engineering

Capstone Project:

STS Stronger Than Steel: Graphene infused vehicle chassis for increased safety of occupants of the vehicle.

Home School: Stillwater CSD

Future Plans: Utica College

Major:

Communication

Capstone Project:

Khonsu Security: Air traffic control sensor system and remote control to improve safer travel of airplanes and the safety of passengers in the air.

Home School: Ballston Spa CSD

Future Plans: SUNY Adirondack

Major: Marketing

Capstone Project:

Paint Removing Gel: Professional paint remover for canvas and other surfaces to remove layers of paint.









Noah Marek

Spencer Mayo

Home School: Broadalbin-Perth CSD

Future Plans:

Clarkson University

Major:

Aeronautical Engineering

Capstone Project:

A Faster Tomorrow: Aerogel that is applied to airplanes to reduce drag and

stress on the plane.

Home School: Schuylerville CSD

Future Plans:

College of Saint Rose

Major:

Finance/Business Administration

Capstone Project:

NaNo Smell: Machine that applies nanoparticles to help smellproof and

waterproof shoes.

Home School: Ballston Spa CSD

Future Plans:

Hudson Valley Community College

Major: Business Administration

Capstone Project:

NanoConserve: Construction material

that incorporates nanoparticles.

Home School: Stillwater CSD

Future Plans:

Utica College

Maior:

Communication Broadcast/

National Guard

Capstone Project:

OTH Radio: Radio wave transmitter using nanotechnology to increase coverage.

Home School: Waterford-Halfmoon UFSD

Future Plans:

Hudson Valley Community College

Major: Radiology

Capstone Project:

Carbon Shox: Basketball shoe introducing new materials that help

reduce ankle injuries.

Home School: Mechanicville CSD

Future Plans:

Cedarville University

Major:

Mechanical Engineering/ Biomedical Engineering

Capstone Project:

C3 Prosthetics: A home therapy program that helps amputees with prosthetics.

Home School: East Greenbush CSD

Future Plans: Siena College

Major:

Computer Science

Capstone Project:

TECHNOsole: Nanosilver infused shoe insert to absorb sweat and kill odor

particles.

Home School: Ballston Spa CSD

Future Plans:

Hudson Valley Community College

Major:

Computer Science

Capstone Project:

Central Nano Processing Unit: Computer

chip with graphene transistors.



Noah Maziejka

Sarah Meisel



