

# IEEE Region 1: Identifying Member Journeys and Interface Points for Engagement

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*IEEE Region 8 113th Meeting  
Valencia, Spain*

*12-13 October 2019*

# *IEEE's 10 Regions of the World*











**Kathy Hochul**  
Lieutenant Governor, New York



**Debra Goldfarb**  
Intel Fellow and Chief Analyst in Intel's Datacenter Market Intelligence Organization



**Jelena Kovacevic**  
Dean of the Tandon School of Engineering at New York University



**Jennifer Howland**  
Pathways Program for Experienced, Diverse Technical Talent, IBM Corporate Headquarters



**Linda Simensky**  
VP, Children's Programming, PBS



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**IEEE WIE Forum USA East 2018**  
November 29 – December 1, 2018 White Plains, NY

## Presentations



**Afroditi V. Filippas**  
Associate Dean  
Undergraduate  
the



**Katerina Tzannes**  
Junior at Marist College



Dr.  
Fil



**Brandi Coon**  
Senior at Marist College



**Cheryl Connors**  
Lead Information Systems Engineer at The Mitre Corporation



**Christina Young**  
Industrial Engineer at Federal Aviation Administration



**Kimberly Scott**  
Co-Founder & VP of Data Science, Astraea, Inc



**Kristen Russell**  
Program Specialist at IEEE



# 2019 IEEE Region 1 Annual Student Conference

8 - 10 March 2019

Innovative Technologies Complex – Binghamton University

Connecting Students with Professionals and IEEE Leaders

## Date:

8 - 10 March 2019

## Location:

Innovative Technologies Complex  
**Binghamton University**  
Vestal, New York

## Steering Committee:

**Conference Chair and  
IEEE Region 1 SAC Chair**  
Dr. Charles Rubenstein, Pratt Inst  
([c.rubenstein@ieee.org](mailto:c.rubenstein@ieee.org))

**Conference Co-Chair**  
Matthew Simiele, Binghamton  
([msimiel1@binghamton.edu](mailto:msimiel1@binghamton.edu))



The IEEE Region 1 Student Conference (StuCon) is the premier annual event where student branches from IEEE Region 1 - the eight Northeastern United States (*CT, MA, ME, NH, NJ, NY, RI and VT*) - meet to discuss mutual challenges and to compete in regional competitions.

The conference objective is to encourage lively student engagement and provide opportunities for students to network and learn from other students while applying practical engineering knowledge. The conference provides a great opportunity for students to interact with IEEE leaders and professionals.



<https://meetings.vtools.ieee.org/m/186672>

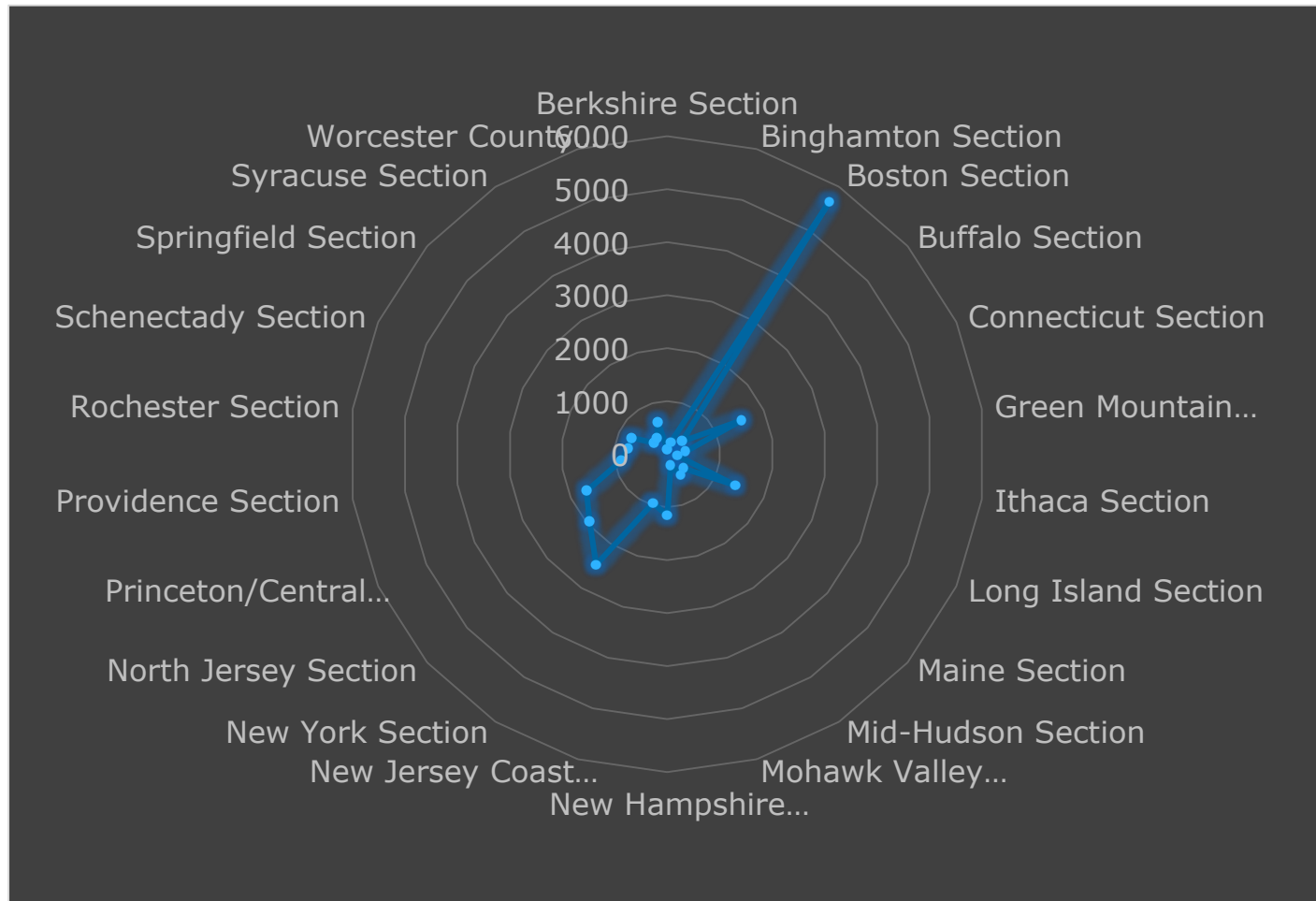
**Hotel Registration Deadline: 20 February 2019**

Region 1				
Grade	Feb-19	Feb-18	# Change	% Change
Honorary	6	6	0	0.0%
Fellow	999	1,027	-28	-2.7%
Senior Member	3,349	3,334	15	0.4%
Member	15,722	16,607	-885	-5.3%
Associate	428	470	-42	-8.9%
GSM	1,087	1,141	-54	-4.7%
StM	1,258	1,508	-250	-16.6%
<b>Total</b>	<b>22,849</b>	<b>24,093</b>	<b>-1,244</b>	<b>-5.2%</b>

<b>Section Name</b>	<b>Total</b>
Berkshire Section	91
Binghamton Section	234
Boston Section	5,658
Buffalo Section	372
Connecticut Section	1,537
Green Mountain Section	349
Ithaca Section	193
Long Island Section	1,419
Maine Section	407
Mid-Hudson Section	467
Mohawk Valley Section	222
New Hampshire Section	1,157
New Jersey Coast Section	964



<b>Section Name</b>	<b>Total</b>
New York Section	2,481
North Jersey Section	1,942
Princeton/Central Jersey Section	1,673
Providence Section	882
Rochester Section	746
Schenectady Section	739
Springfield Section	326
Syracuse Section	358
Worcester County Section	632
Total	22,849



Geographic IEEE Membership Summary - February 2019																
REGION	Higher-Grade w/o GSM				Graduate Students				Undergraduate Students				TOTAL MEMBERS			
	2019	2018	Change		2019	2018	Change		2019	2018	Change		2019	2018	Change	
			#	%			#	%			#	%			#	%
1	20,504	21,444	(940)	-4.4%	1,087	1,141	(54)	-4.7%	1,258	1,508	(250)	-16.6%	22,849	24,093	(1,244)	-5.2%
2	17,936	18,625	(689)	-3.7%	1,033	1,021	12	1.2%	953	1,046	(93)	-8.9%	19,922	20,692	(770)	-3.7%
3	17,852	18,317	(465)	-2.5%	1,514	1,535	(21)	-1.4%	1,593	1,682	(89)	-5.3%	20,959	21,534	(575)	-2.7%
4	12,847	13,381	(534)	-4.0%	1,152	1,195	(43)	-3.6%	1,207	1,248	(41)	-3.3%	15,206	15,824	(618)	-3.9%
5	16,930	17,403	(473)	-2.7%	1,182	1,226	(44)	-3.6%	1,440	1,523	(83)	-5.4%	19,552	20,152	(600)	-3.0%
6	34,743	36,025	(1,282)	-3.6%	1,834	1,837	(3)	-0.2%	2,562	2,769	(207)	-7.5%	39,139	40,631	(1,492)	-3.7%
R 1-6	120,812	125,195	(4,383)	-3.5%	7,802	7,955	(153)	-1.9%	9,013	9,776	(763)	-7.8%	137,627	142,926	(5,299)	-3.7%
7	9,666	9,813	(147)	-1.5%	1,645	1,460	185	12.7%	1,264	1,063	201	18.9%	12,575	12,336	239	1.9%
8	38,630	39,194	(564)	-1.4%	7,397	7,336	61	0.8%	6,817	6,789	28	0.4%	52,844	53,319	(475)	-0.9%
9	5,830	5,974	(144)	-2.4%	925	977	(52)	-5.3%	3,235	2,884	351	12.2%	9,990	9,835	155	1.6%
10	47,406	46,873	533	1.1%	11,160	10,678	482	4.5%	20,185	19,405	780	4.0%	78,751	76,956	1,795	2.3%
R 7-10	101,532	101,854	(322)	-0.3%	21,127	20,451	676	3.3%	31,501	30,141	1,360	4.5%	154,160	152,446	1,714	1.1%
TOTAL	222,344	227,049	(4,705)	-2.1%	28,929	28,406	523	1.8%	40,514	39,917	597	1.5%	291,787	295,372	(3,585)	-1.2%



- ▶ Region 1 held a Strategic Offsite Meeting on February 23 and 24 2019
- ▶ Small group of selected attendees
  - Made up of volunteers that would normally not get chosen for this type of effort – broad spectrum
  - Focus on defining the Needs of our various member segments
  - Jumping off from the 2018 R1 meeting focused group conclusions

# Understanding Our Journey

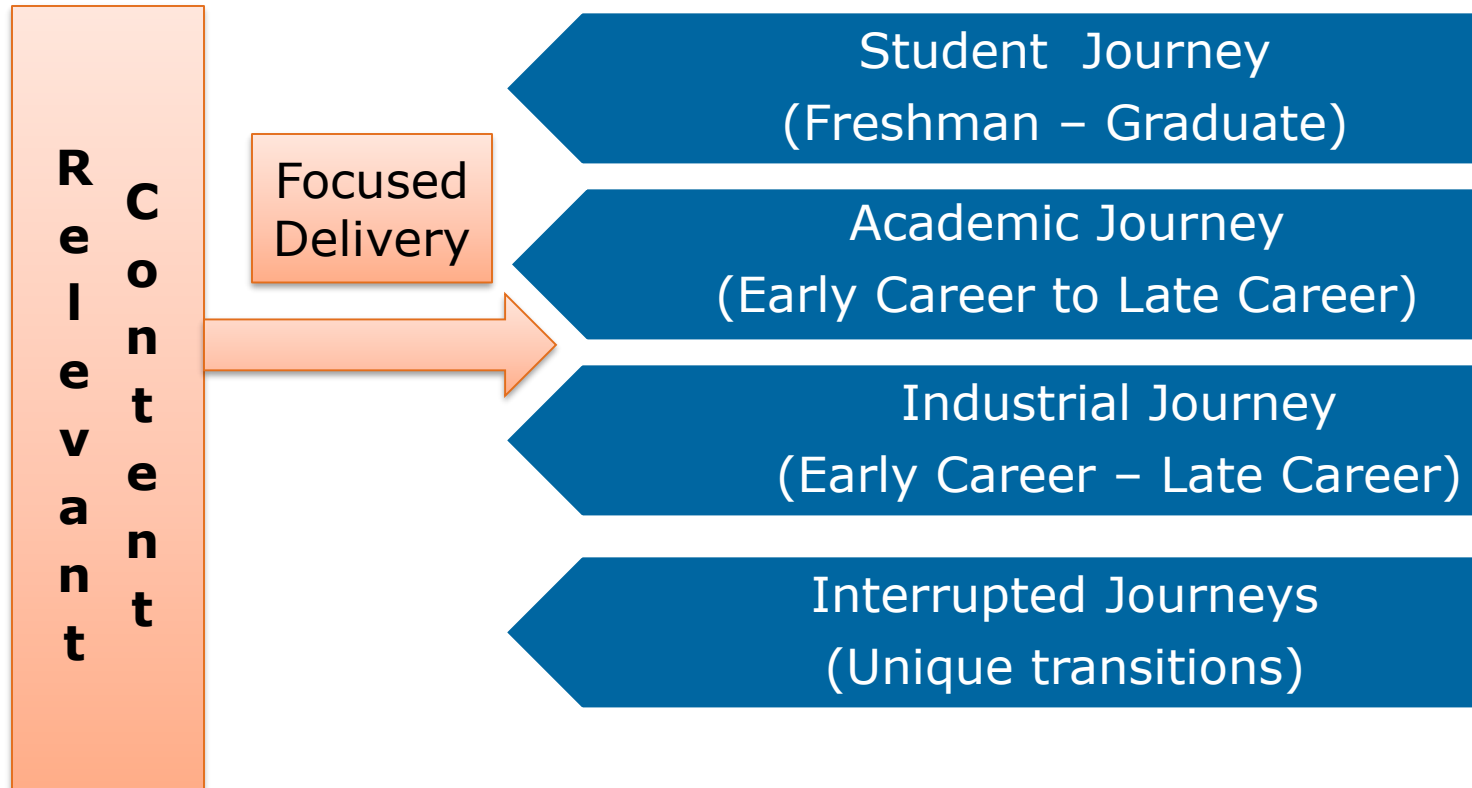
**IEEE Region 1**

- The goal of Offsite was to help establish a Regional Level multi-year Strategy that embodies the IEEE Corporate goals as well as our R1 realities.
- To do that we **first** need to understand the needs of those we want to impact/serve.



- 1. Student
- 2. Grad Student
  - 2.1 Academic Path
  - 2.2 Industry Path
- 3. Member
  - 3.1 Academic Path
    - 3.1.1 Researcher
    - 3.1.2 Educator
  - 3.2 Industry Path
    - 3.2.1 Individual Contributor
    - 3.2.2 Managerial Path
  - Members dealing with Career Interruptions
    - Primary Caregivers/Stay at Home/Career transitions

# What IEEE can/must do



# Student Journey

Transition 1	Transition 2	Transition 3	Transition 4	Transition 5
HS - Freshman	Freshman - Sophomore	Sophomore - Junior	Junior -Senior	Senior - 2 or 3 below
Need	Need	Need	Need	Need
<ul style="list-style-type: none"> <li>• Social Networking</li> <li>• Adjusting</li> <li>• Study Skills</li> <li>• Time Mgmt.</li> </ul>	<ul style="list-style-type: none"> <li>• Social Networking</li> <li>• Initial Technical Focus</li> </ul>	<ul style="list-style-type: none"> <li>• Technical and Career focus</li> </ul>	<ul style="list-style-type: none"> <li>• Deeper Technical focus</li> <li>• Career Focus</li> </ul>	<ul style="list-style-type: none"> <li>• Job skills</li> <li>• Professional development</li> <li>• Career Portfolio</li> </ul>



# Academic Journey

Researcher

Transition 1	Transition 2	Transition 3
Grad student to Pre-Tenure Position	Achieving Tenure	Moving into Administrative Position
Need	Need	Need
<ul style="list-style-type: none"> <li>• Obtaining Research grants</li> <li>• Achieving Professional Credits</li> <li>• Generating Successful Publications</li> </ul>	<ul style="list-style-type: none"> <li>• Support for research</li> <li>• Achieving Grants</li> <li>• Successful record of Publications</li> <li>• Industry Contacts</li> </ul>	<ul style="list-style-type: none"> <li>• Professional Development</li> <li>• Leadership skills</li> <li>• Industry Contacts</li> </ul>

Educator

Transition 1	Transition 2	Transition 3
Grad student to Lecturer	Educator to Full time faculty	Moving into Administrative Position
Need	Need	Need
	<ul style="list-style-type: none"> <li>• Professional Networking</li> <li>• Educational Track Conferences</li> <li>• Peer Recognition</li> </ul>	<ul style="list-style-type: none"> <li>• Professional Development</li> <li>• Leadership skills</li> <li>• Industry Contacts</li> <li>• Recognition</li> </ul>

# Industrial Journey

Individual Contributor

Transition 1	Transition 2	Transition 3	Transition 4
Student to Entry Level Professional	Entry level to "Journeyman"	"Journeyman" to Expert	Full time to late Career transition
Need	Need	Need	Need
<ul style="list-style-type: none"> <li>• Understand the culture</li> <li>• Establishing a new social network</li> <li>• Career and Life Mentoring</li> <li>• Establishing a work/life balance</li> </ul>	<ul style="list-style-type: none"> <li>• Maintaining technical competency</li> <li>• Establishing technical network</li> </ul>	<ul style="list-style-type: none"> <li>• Deep technical learning</li> <li>• Expanding technical network</li> <li>• Obtaining recognition</li> </ul>	

Managerial Path

Transition 1	Transition 2	Transition 3	Transition 4
Student to Entry Level Professional	Entry to initial leadership role	Leadership to Managerial role	Full time to late Career transition
Need	Need	Need	Need
<ul style="list-style-type: none"> <li>• Understand the culture</li> <li>• Establishing a new social network</li> <li>• Career and Life Mentoring</li> <li>• Establishing a work/life balance</li> <li>• Developing Managerial skills</li> </ul>	<ul style="list-style-type: none"> <li>• Develop soft skills</li> <li>• Develop Managerial skills</li> <li>• Establish Professional Network</li> </ul>	<ul style="list-style-type: none"> <li>• Expanding Managerial skills</li> <li>• Expanding Financial skills</li> <li>• Professional recognition</li> <li>• Expanding Professional network</li> </ul>	

# Interrupted Journey

## Interrupted Journeys

Transition 1	Transition 2	Transition 3	Transition 4
Working to full-time caregiver	Caregiver back to the workforce	Working to unplanned non-working	Re-entering workforce
Need	Need	Need	Need
<ul style="list-style-type: none"> <li>• Staying connected</li> <li>• Staying technically relevant</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities</li> <li>• Skills training</li> <li>• Re-establishing network</li> </ul>	<ul style="list-style-type: none"> <li>• Staying Connected</li> <li>• Broadening network</li> <li>• Refreshing skills</li> <li>• Learning new skills</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities</li> <li>• Re-establishing network</li> </ul>

