

# INTRODUCTION



## ENGINEERING DEPARTMENT: SMART BUILDING TECHNOLOGY PROGRAM

### A Preferred Producer of 'State-of-the-Art' Building Automation Technicians

- 1. Certified Building Automation Technician Associate**
  - Building Automation Fundamentals: 30 hrs 3 hrs/wk
  - Intro BAS Controllers/Software (LAB): 21 hrs 3 full days
  - BAS Control Devices & Applications: 30 hrs 3 hrs/wk
  - BAS Networking: 30 hrs 3 hrs/wk
  - 111 hrs**
- 2. Certified Building Automation Technician Practitioner**
  - BAS Electrical: 30 hrs 3 hrs/wk
  - BAS HVAC/R and Controls: 30 hrs 3 hrs/wk
  - BAS Logic and Programming (LAB): 21 hrs 3 full days
  - BAS Systems Design and Installation: 30 hrs 3 hrs/wk
  - 111 hrs**
- 3. Certified Building Automation Technician (1+2+3)**
  - BAS Integration: 75 hrs 8 full days
  - BAS Internship: 3 months

**Why RCC?** See other side ⇌ **Why SBT?** See other side ⇌

State-of-the-Art Classrooms and LAB curriculum supported by the National Science Foundation Building Efficiency for a sustainable Tomorrow Advanced Technological Education Grant.

## BUILDING AUTOMATION

STRETCH CODES

CITY of BOSTON Mayor Michelle Wu

## BERDO 2.0

### BUILDING ENERGY REDUCTION AND DISCLOSURE

## ENGINEERING DEPARTMENT: SMART BUILDING TECHNOLOGY PROGRAM

### Offering Boston's 'Best in Class' Energy Efficiency Certification Training Programs

	RESIDENTIAL	MULTI-FAMILY	COMMERCIAL		
2019	HERS RISE, BPI	PHIUS	WELL Certification, LEED Certification Green Associate	LEED Certification Green Associate	Fundamentals of Green Building Operations & Maintenance
2020	Electrical Systems, Plumbing, Mechanical	Building Performance Inst. Building Science Principles, Passive House Training	Building Operator Training Level 1, WELL Certification	LEED Certification BO + C, ACP Certified Building Control Professional	Electrical Systems, Plumbing, Mechanical

**MISSION:** The RCC Center for Smart Building Technology prepares the highly skilled workforce needed to implement the sustainable, high-performance, and energy-efficient smart building practices required to achieve Boston's 2050 carbon neutral goal...with a sense of urgency and environmental equity.

An example of the employees we have trained include the following:

## ENERGY EFFICIENCY

# CENTER FOR SMART BUILDING TECHNOLOGY

## ENGINEERING DEPARTMENT

New Program

## SMART BUILDING TECHNOLOGY PROGRAM

### Boston 2050

Boston Mayor Martin J. Walsh has pledged to make Boston a carbon-neutral city by 2050. RCC's SBT Program supports this goal by training the technicians who will operate the energy-efficient buildings, which must operate at maximum efficiency to achieve this goal.

In 2019, RCC had a vision of developing the energy efficiency and building automation workforce needed to achieve Boston's 2050 Carbon Neutral goal. In this quest RCC has been honored to have partnered with numerous industry leading experts. At RCC we believe that Boston is a world leader in establishing pathways to a new, more sustainable and equitable future. We believe the city is best positioned to achieve success in this realm, only if we can activate the workforce needed, in the neighborhoods that need the most help. To do so, we must work in a more strategic, equitable and focused manner. We can and will lead the country in these efforts. The future is bright. Please join us!

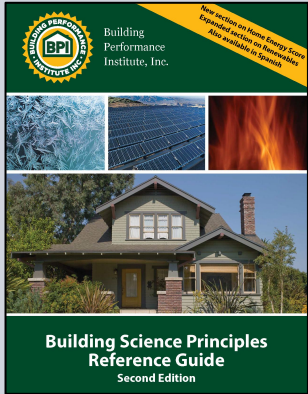
Senator Markey launching SBT program at RCC

**Why RCC?** See other side ⇌ **Why SBT?** See other side ⇌

**Ready to Learn More?**  
To learn more about RCC's SBT Program, contact: Frank Miruk FAIA, RIBA, Executive Director  
Smart Building Technology Program

# KEY PROBLEM

How to make opportunities visible to new Emerging workforce?



Residential Energy Efficiency

+



Commercial Energy Efficiency

+



OSHA Safety

+



Intro to Building Automation

## RESUME:

- BPI Building Science Principle - Certificate of Completion
- GPRO Fundamentals - Certification
- OSHA 10 Hour - Certification
- Intro to Building Automation - Certificate of Completion



# KEY OBSTACLE

How to get more student interest?

**Forbes**  
EDUCATION  
**Academic Influence Ranks The Best Community Colleges, Nationally And By State**  
Michael T. Nietzel Senior Contributor  
*I am a former university president who writes about higher education.* [Follow](#)  
Mar 7, 2021, 06:00am EST  
[Listen to article 6 minutes](#)

- Here are the top 10 community colleges in the nation according to Academic Influence's list of the top 50.
1. Anne Arundel Community College (Maryland)
  2. Roxbury Community College (Massachusetts)
  3. Eastern Maine Community College
  4. Springfield Technical Community College (Massachusetts)
  5. College of Marin (California)
  6. Los Angeles City College
  7. Lamar Institute of Technology (Texas)
  8. Kennedy-King College (Illinois)
  9. West Kentucky Community and Technical College
  10. Lamar State College - Port Arthur (Texas)



# BENEFITS/CONSEQUENCES

30% of the population of Boston lives in these 3 EJ neighborhoods

**675,647 population Boston**  
54,905 ROXBURY  
23,834 MATTAPAN  
122,191 Dorchester  
200,930 [30%]

Block Group 3, Census Tract 806.01, Suffolk County, Massachusetts

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This 2020 blockgroup in **Boston** is an EJ population with the criteria: **Minority and income**

————— **ROXBURY**

EJ characteristics of the block group:  
Median household income: **\$9,185**:  
this is 10.7 % of the MA median.  
Total minority population: **87.3 %**  
Households with language isolation:**21.3 %**

Block Group 3, Census Tract 1010.01, Suffolk County, Massachusetts

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This 2020 blockgroup in **Boston** is an EJ population with the criteria: **Minority, income and English isolation**

————— **MATTAPAN**

EJ characteristics of the block group:  
Median household income: **\$44,837**:  
this is 52.2 % of the MA median.  
Total minority population: **100.0 %**  
Households with language isolation:**24.9 %**

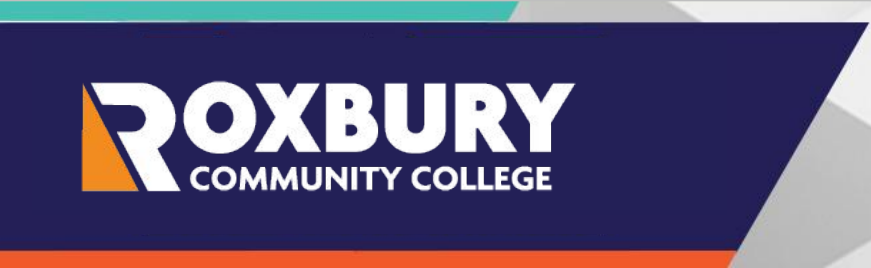
Block Group 1, Census Tract 916, Suffolk County, Massachusetts

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This 2020 blockgroup in **Boston** is an EJ population with the criteria: **Minority**

————— **DORCHESTER**

EJ characteristics of the block group:  
Median household income: **\$62,679**:  
this is 73.0 % of the MA median.  
Total minority population: **78.9 %**  
Households with language isolation:**16.9 %**



# FINAL STATEMENT

"Regarding Buildings and Construction, to achieve Boston's Carbon & Equity goals, a critical obstacle to collaboratively overcome within the next 12 months is:

**Cultivating more interest from the emerging workforce in EJ**

**communities to engage in opportunities in the future built environment.**

