



**YOUTH  
CHAMPIONS**

*Building our future, today!*



**NATIONAL CENTER FOR TRANSPORTATION SYSTEMS PRODUCTIVITY AND MANAGEMENT**

**Birmingham City Schools**

*Believe. Create. Succeed.*

**UAB SUSTAINABLE SMART  
CITIES RESEARCH CENTER**

Knowledge that will change your world

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We are pleased to announce the creation of the **Sustainable Smart Cities Youth Champions** program, a program of the *Sustainable Smart Cities Research Center at the University of Alabama at Birmingham (UAB SSC)*.

The **Sustainable Smart Cities Youth Champions** will start with middle school students (between the ages of 12-14 ) attending inner-city Birmingham City Schools.

### Improving quality of life

Educating the youth about the responsible management of the natural resources improves the quality of life for present and future generations by increasing the possibilities to: breath clean air, drink clean water, eat fresh foods and enjoy green and open spaces.

### Building human capital

The **Sustainable Smart Cities Youth Champions** program provides inner-city youth with hands-on learning opportunities.

By teaching the importance and benefits of protecting the environment, at an early age, we are helping nurture a more responsible adult and a better community.

Through the **Sustainable Cities Youth Champions** program, children are exposed to new fields of knowledge as well as future career opportunities in the emerging *Science of Cities*.

Researchers estimate that by year 2050, 90 percent of Americans will live in cities that collectively will consume three-fourths of the world's energy.

The future of Birmingham and communities across the nation demands the sustainability of environmental, social, and economic urban resources. The success of this program relies on the collaboration of the public, private, and grassroots organizations.

Please join us in *Building our future , today!*

Fouad H. Fouad, PhD  
Professor and Chair, UAB Civil, Construction and Environmental Engineering Department  
Director, UAB Sustainable Smart Cities Research Center (SSC)  
University of Alabama at Birmingham  
Birmingham, Alabama  
USA



## About the Program

The program consists of four visits to UAB scheduled on Saturdays, starting on February 8<sup>th</sup> and finishing on March 1<sup>st</sup>.

The **Sustainable Smart Cities Youth Champions** program provides fun, exciting and hands-on learning experiences.

Each Saturday, one of the following topics within sustainability will be addressed:

1. Sustainable Transportation and Energy Conservation
2. Environmental Quality
3. Field Trip\*
4. Health and Livability of Cities

Students will learn how to incorporate these topics into our designs for the city of tomorrow.

These principles will be discussed both in the big picture as well as how the students can practice them in the home and everyday life. Hands on laboratory experiences will be emphasized. Lessons are taught by UAB faculty, graduate students and staff.

## Logistics

Students meet each Saturday at 8:45 am, in their respective school. They will travel in a school bus to each field trip location, escorted by 2 to 4 of their school's science teachers.

Light breakfast will be served at 9:00 am and the activities will take place from 9:30 am to 11:30 am. Lunch will be provided from 11:30 am till noon. Students must be picked up from the school by parent or guardian upon return from UAB at 12:30 pm.

## Principles of Sustainability

Students will learn about the principles of sustainability through four modules:

### 1. Sustainable Transportation and Energy Conservation

- Importance of transportation
- Active transportation
- Energy use and emissions

### 2. Environmental Quality

- Air and water quality
- Hazardous materials
- Indoor environments
- Water use reduction
- Waste minimization and recycling

### 3. Field Trip

### 4. Health and Livability of Cities

- Food systems/urban gardens
- Recreational space
- Green buildings

*\*Locations for field trips will vary depending on the sponsoring corporation.*

## For more information or to sponsor a school:

**UAB Sustainable Smart Cities Research Center**  
1075 Thirteenth Street South Birmingham,  
Alabama 35294-4461, USA (205) 934-8430  
[Info@UABSSC.org](mailto:Info@UABSSC.org)  
[www.uab.edu/smartcities](http://www.uab.edu/smartcities)

*Program is provided at no charge to the student.*

140 HOEN Building  
1075 Thirteenth Street South Birmingham,  
Alabama 35294-4461  
USA  
(205) 934-8430  
[Info@UABSSC.org](mailto:Info@UABSSC.org)  
[www.uab.edu/smartcities](http://www.uab.edu/smartcities)

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## About the NCTSPM National Center For Transportation Systems Productivity and Management

National Center for Transportation Systems Productivity and Management (NCTSPM) is a Tier 1 University Transportation Center (UTC). Funded by the US Department of Transportation (USDOT) Research and Innovative Technology Administration (RITA), NCTSPM is a collaboration between Georgia Institute of Technology, Georgia Transportation Institute, Florida International University, University of Central Florida, University of Alabama at Birmingham, and each university's state Department of Transportation.



## About the UAB Sustainable Smart Cities Research Center (SSC)

The Sustainable Smart Cities Research Center (SSC) at the University of Alabama at Birmingham (UAB) is an enabling platform for interdisciplinary collaboration to understand and transform the impact of urbanization at the scientific, economic, and human levels.

UAB's contribution to sustainability derives from the university's unique capabilities to generate new knowledge and cutting-edge science.

Through the Sustainable Smart Cities Research Center (SSC), UAB acts as an engine of innovation that can transform the community by developing smart technologies and information systems, better transportation models, green construction, renewable energy, and sustainable environment, which results in increased economic development, healthier workforce, and better quality of life for all. Such innovation-based growth will lead to societal transformation, and UAB is proud to be at the forefront of this process, leading the way to the future.



*Building our future, today!*



UAB SUSTAINABLE  
SMART CITIES  
RESEARCH CENTER

