



*Proposal from the United States and Canada for*

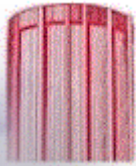
**25<sup>th</sup> International Conference On  
Structural Mechanics In Reactor Technology**

**SMiRT 25**

**August 4-9, 2019**

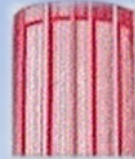
*Abhinav Gupta, Director CNEFS  
Chip Futrell, Director OPD*





# Organizing Universities, Centers, and Consortia

NC State University



Department of Nuclear Engg

Division of Continuing Education

Center for Nuclear Energy Facilities & Structures



E<sup>4</sup> Carolinas Nuclear Cluster

Energy Production & Infrastructure Center

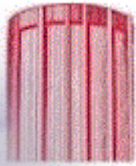


# Supporting Organizations



**Many Other Organizations Have Sent Letters**



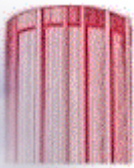


# Proposed Location and Dates



**Charlotte,  
North Carolina**

**Proposed Dates: August 4 – 9, 2019**



# Charlotte – The New Energy Capital

**Significant rise of Carolinas in research, development, and engineering**

**More than 200 nuclear energy related companies in Charlotte region**

**About 25,000 employees in the Charlotte**

**Home of Duke Energy – Serves about 7 million customers**

**AREVA, CBI (Shaw group), URS, Fluor, Toshiba**

**EPRI - Significant R&D presence**

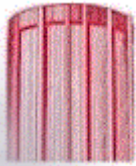
**Research Triangle Park (RTP) – About 2 hours away**

**RTP – Home of major universities – NCSU, UNC-Chapel Hill, Duke**

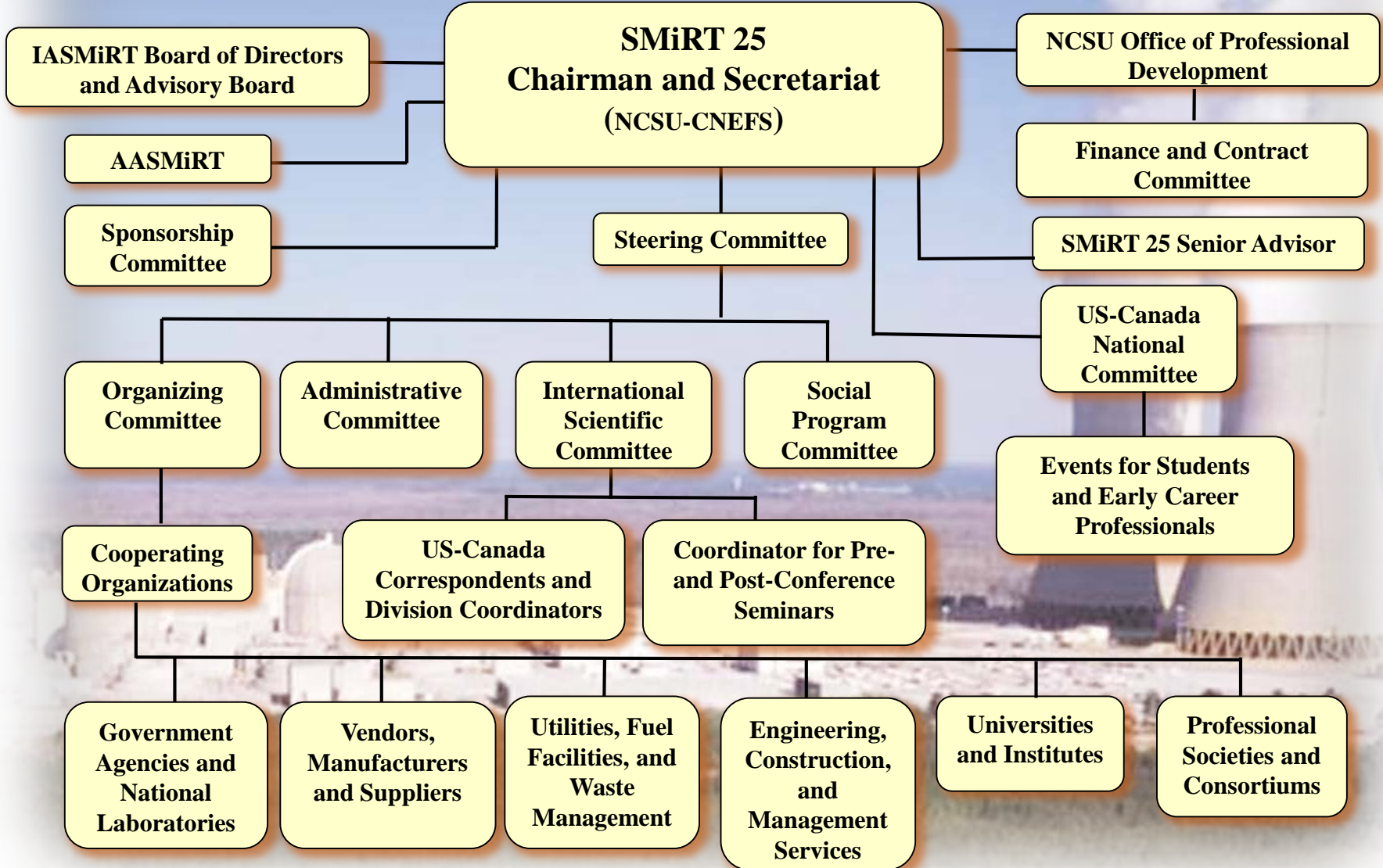
**All 5 new units under construction are within driving distance**

**Home to EPIC at UNC-Charlotte and E<sup>4</sup> Carolinas**

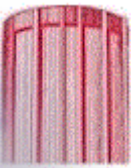
**4 operating units are less than one hour away**



# Proposed Organization







# Proposed Organization

## Proposed Leadership of SMiRT 25

**Chairman - Abhinav Gupta, Director of CNEFS**

**Contract/Finances by OPD**

**Dept. of Nuclear Engineering**

**Steering Committee in consultation with AASMiRT**

**Chairman will work closely with Senior Advisor**

## International Scientific Committee

**Proposed Chair - Sujit Samaddar, USNRC**

**Assisted by Andrei Blahoianu, CNSC**

## Local Support

**E<sup>4</sup> Carolinas Nuclear Cluster**

**ANS Piedmont Chapter**

**Charlotte Regional Visitor Authority**





# Proposed Organization

## Pre- and Post- Conference

**To be coordinated by Prof. Amit Verma of Purdue University**

**Aircraft Impact**

**Soil-Structure Interaction**

**Deterioration of Materials**

**Probabilistic Risk Assessment**

**Small Modular Reactor Construction**

## Technical Workshop at Planning Meeting in 2018

**AASMiRT will support this activity**

## Technical Tours

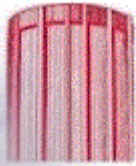
**New Units at Vogtle (3 Hours)**

**Construction sites at VC Summer (90 Minutes)**

**Existing plants at McGuire and Catawba (45 Minutes)**



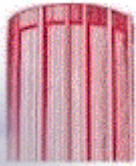




# Hotel and Conference Facilities







# Charlotte Uptown – Dining

**EpiCenter – Three Floors of Dining and Other Activities**

**Stylish Bowling Lounges**

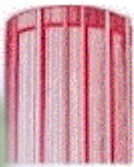
**Shopping and Movies**



**7<sup>th</sup> Street Public Market – International Cuisines**



**Several Hundred Restaurants  
Within a Walking Distance of about  
5 blocks**



# Douglas International Airport (CLT)

**Winner of prestigious Eagle Award in 2010 from IATA**

**Recognized for quality service and economical value to customers**

**Only 7 miles from Convention Center**

**Number of passengers in 2014 - 44.3 million**

**23<sup>rd</sup> Busiest in the world and 6<sup>th</sup> busiest in USA**

**712 Daily departures and nonstop service to 159 destinations**

**Key international countries served nonstop**

**England**

**Canada**

**Italy**

**France**

**Spain**

**Ireland**

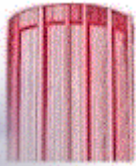
**Germany**

**Netherlands**

**Mexico**







# Charlotte Art and Culture



**The Mint Museum**

**Blumenthal Performance Arts Center**



**Charlotte Opera**

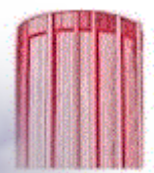


Levine  
Museum of the New South

**COME TO UNDERSTAND**







# Charlotte Other Attractions

**US National White Water Center**

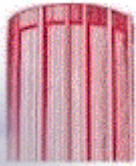


**Home of NASCAR**



**Knights Baseball**





# Nearby Attractions

**Biltmore Estate**



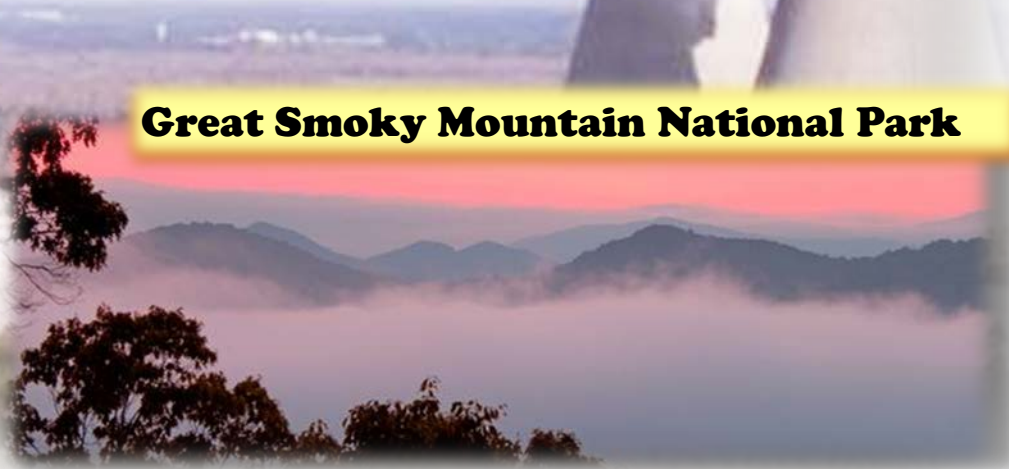
**Blue Ridge Parkway**

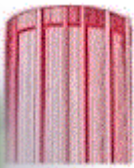


**Cherokee Indian Reservation**



**Great Smoky Mountain National Park**





# Preliminary Team and Acknowledgments

## Following Team Members Contributed to this Proposal

**John Luxat (McMaster University)**

**Andrei Blahoianu (CNSC)**

**Sujit Samaddar (USNRC)**

**David Doctor (E<sup>4</sup> Carolinas)**

**Steve McDuffie (DOE)**

**Greg Hardy (SGH)**

**Justin Coleman (INL)**

**Robert Keiser (Duke Energy)**

**Andrew Whittaker (MCEER/UB)**

**Amit Verma (Purdue University)**

**Divakar Bhargava (Dominion)**

**Richard Barnes (ASME)**

**Jim Rispoli, Edward Jaselskis, Nam Dinh, Lisa Marshall (NCSU)**

**Mirsad Hadzikadic (EPIC-UNC, Charlotte)**