



Proposal from the United States and Canada for

25th 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



E4 Carolinas Nuclear Cluster



Energy Production &
Infrastructure Center

Supporting Organizations



Many Other Organizations Have Sent Letters



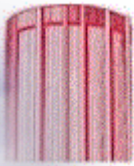
Proposed Location and Dates

A blue map of the United States with white state boundaries. A yellow callout box points to the state of North Carolina.

**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

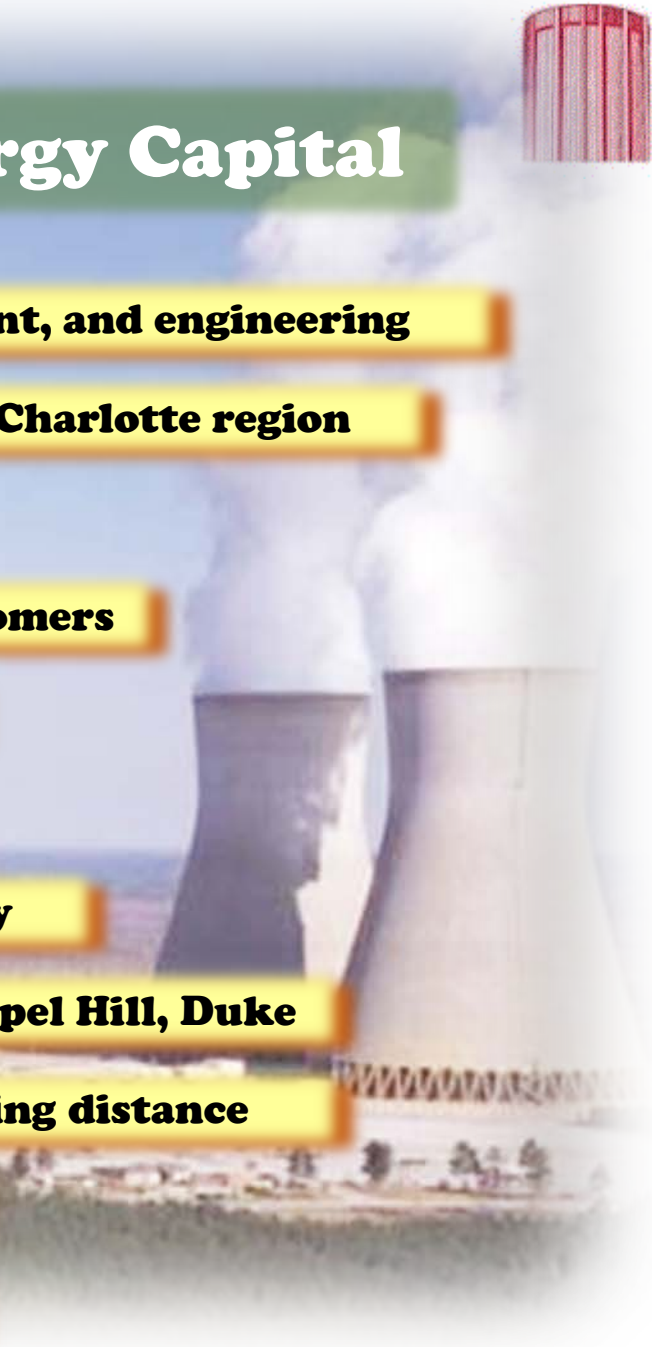
Research Triangle Park (RTP) – About 2 hours away

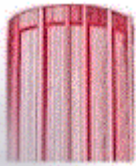
RTP – Home of major universities – NCSU, UNC-Chapel Hill, Duke

All 5 new units under construction are within driving distance

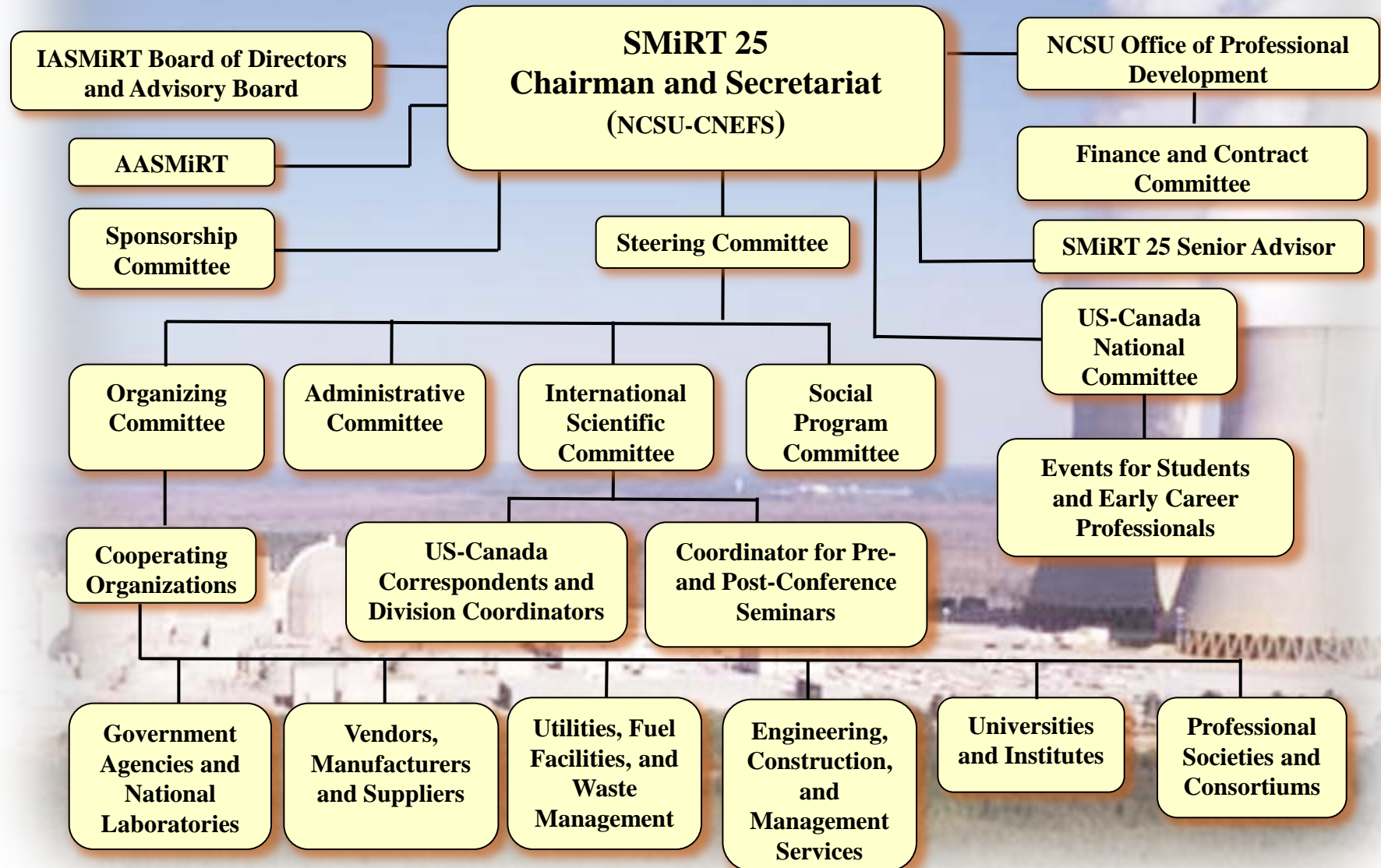
Home to EPIC at UNC-Charlotte and E⁴ Carolinas

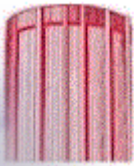
4 operating units are less than one hour away





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

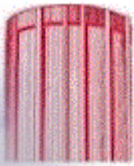
Local Support

E⁴ 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

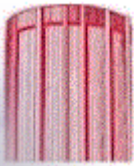
Technical Tours

New Units at Vogtle (3 Hours)

Construction sites at VC Summer (90 Minutes)

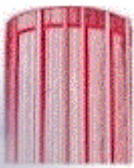
Existing plants at McGuire and Catawba (45 Minutes)





Hotel and Conference Facilities





Charlotte Uptown – Dining

EpiCenter – Three Floors of Dining and Other Activities

Stylish Bowling Lounges

Shopping and Movies



7th 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

23rd Busiest in the world and 6th 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

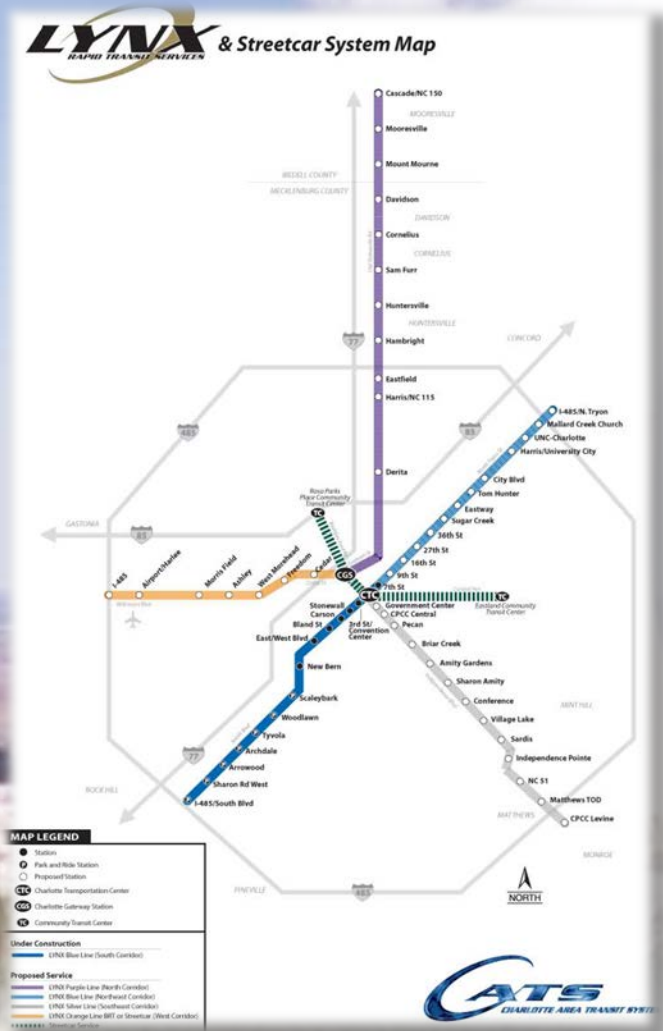
Charlotte – Local Transportation

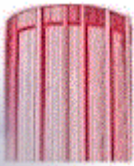


Charlotte Light Rail



Charlotte B-Cycle





Charlotte Art and Culture



The Mint Museum

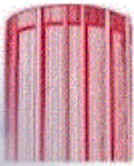
Blumenthal Performance Arts Center



Charlotte Opera



COME TO UNDERSTAND



Charlotte Other Attractions

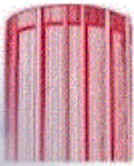
US National White Water Center



Home of NASCAR



Knights Baseball



Nearby Attractions

Biltmore Estate



Blue Ridge Parkway

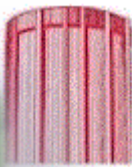


Cherokee Indian Reservation



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 (E⁴ 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)