

HIGH VOLTAGE SURVEY

Results from Academia and Industry

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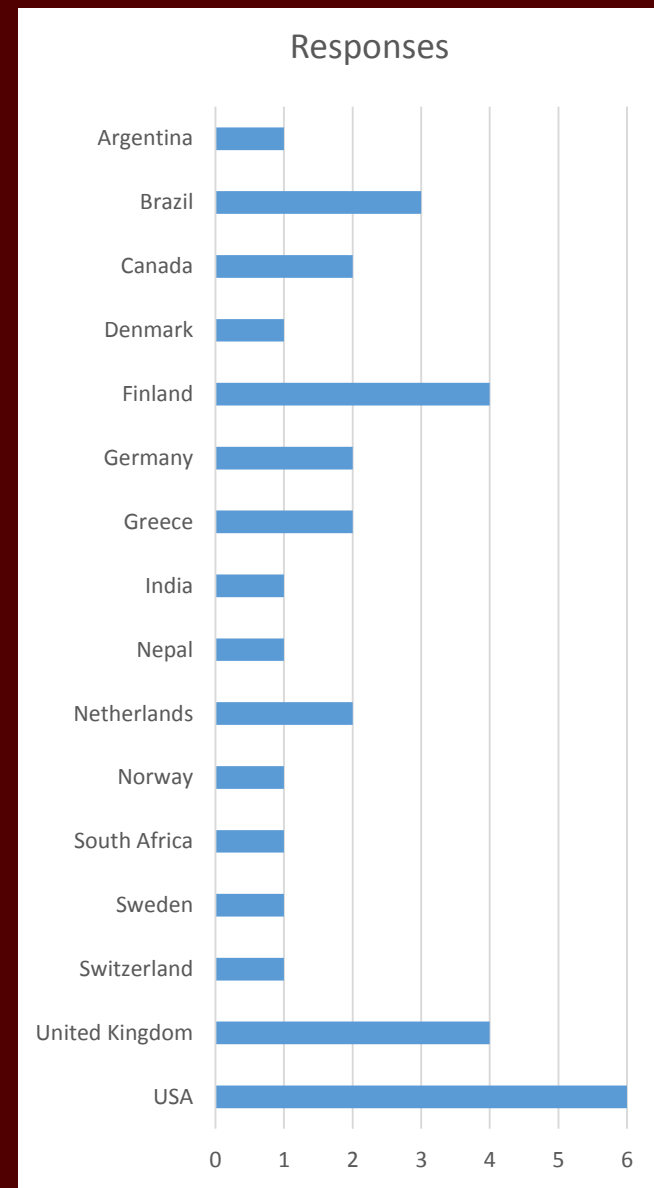
High Voltage Laboratory

Website: <http://www.ece.msstate.edu/high-voltage-lab/>

Email: hvl@ece.msstate.edu

Survey sent to 220
member of
academia an
industry

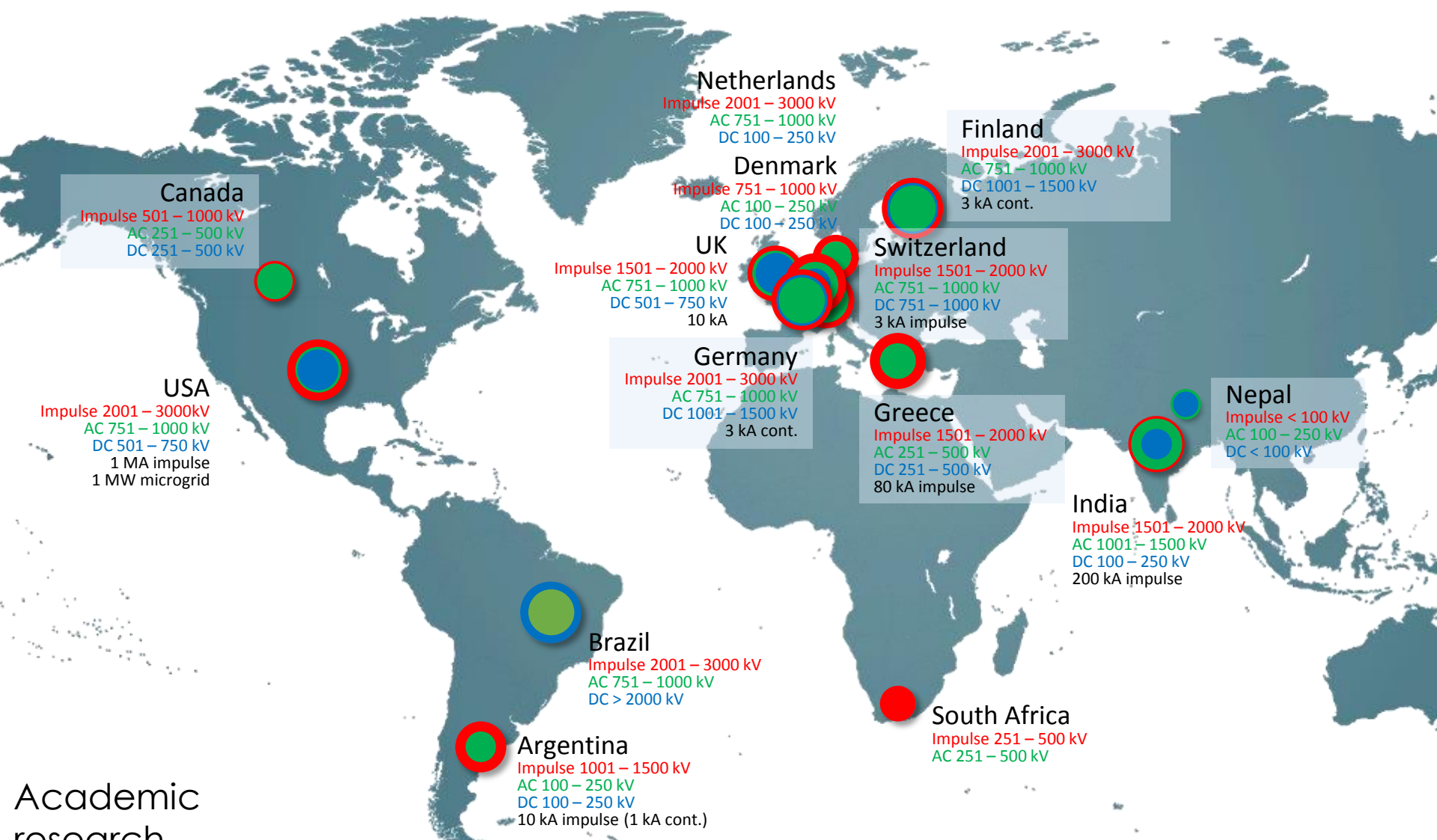
33 answers (15 %)
by December 2015
(24 academia, 9 industry)



ACADEMIA RESULTS



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Academic
research
capabilities

Note: not all capabilities identified for a nation are within a single research center

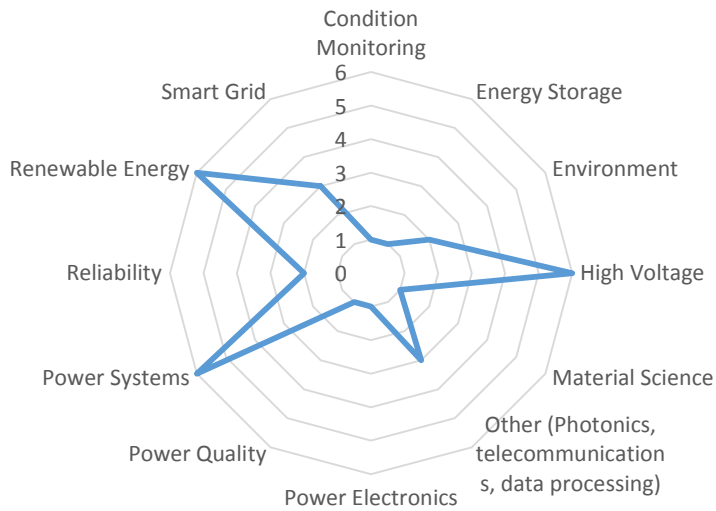


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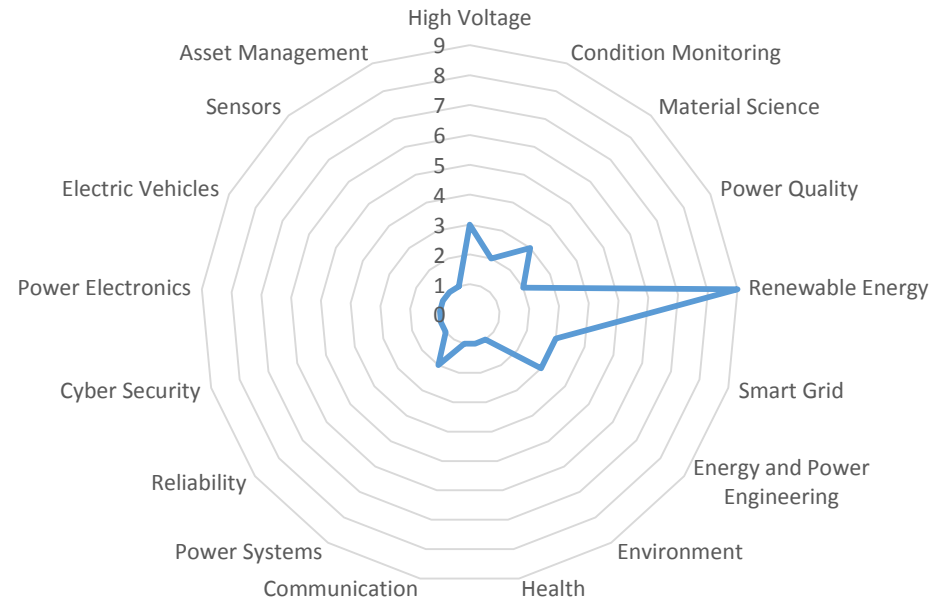
Academia Results (12/2015)

Focus Areas in Electrical Engineering

TODAY



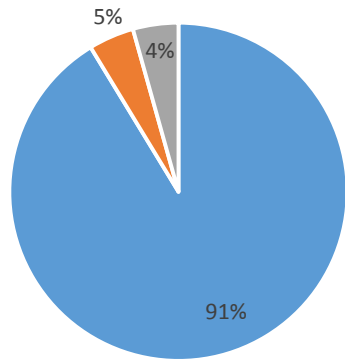
FUTURE



High Voltage Education

Do you offer HV courses?

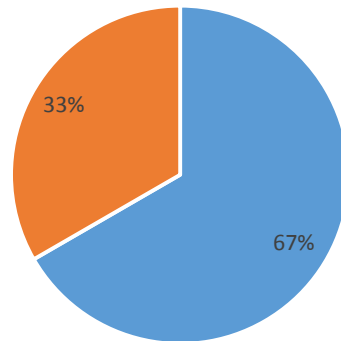
- Yes, separate courses
- Only high voltage engineering
- Only power systems



N = 23 (96%)

Interested in distance/online high voltage courses?

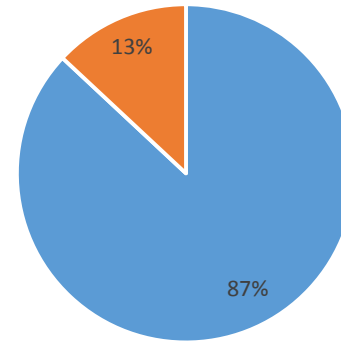
- Yes
- No



N = 21 (86%)

Should high voltage engineering be taught at a university?

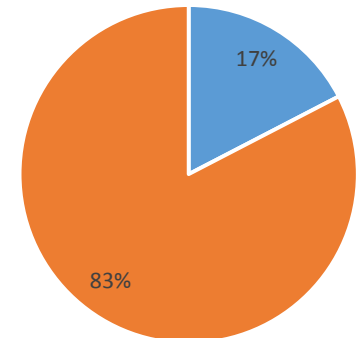
- Yes, the university should prepare individuals for future challenges in high voltage
- Conditional (depends on educational program and facilities)



N = 23 (96%)

Can high voltage engineering be taught without a HV laboratory?

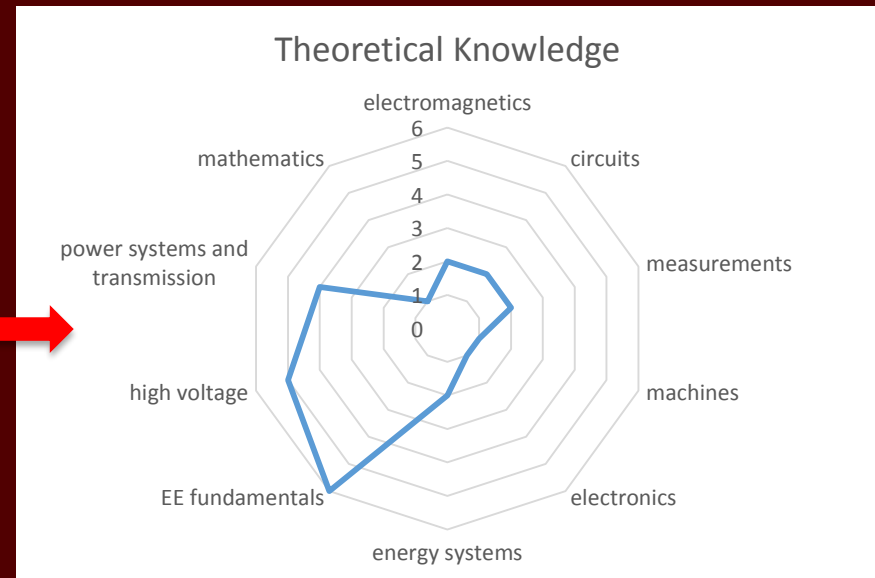
- Yes
- No



N = 23 (96%)



What is the most important skill (or knowledge) students should acquire at a university to prepare them for work in the electrical industry?

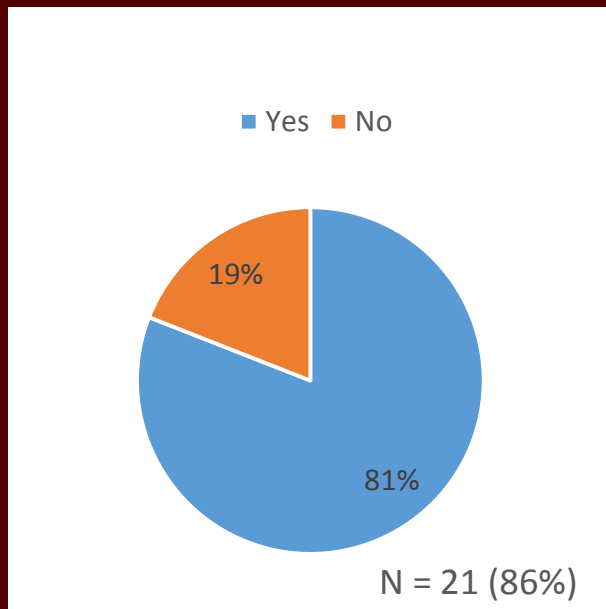


How many provide safety training (certified/uncertified)?

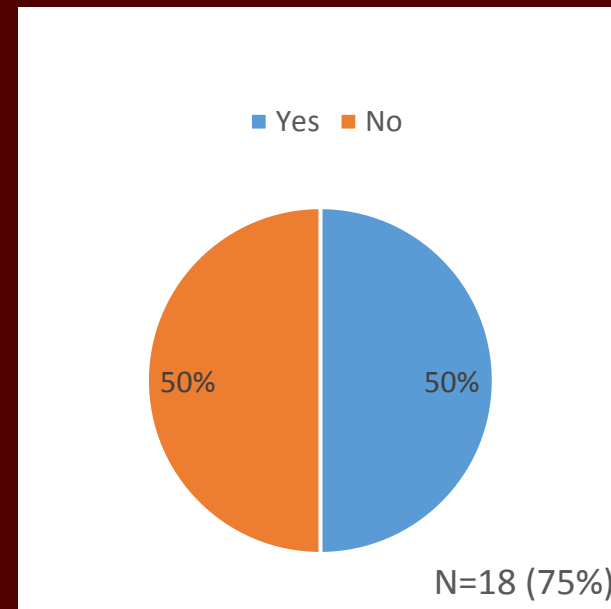


High Voltage Facilities

Do you offer evaluation (testing) services to external customers?

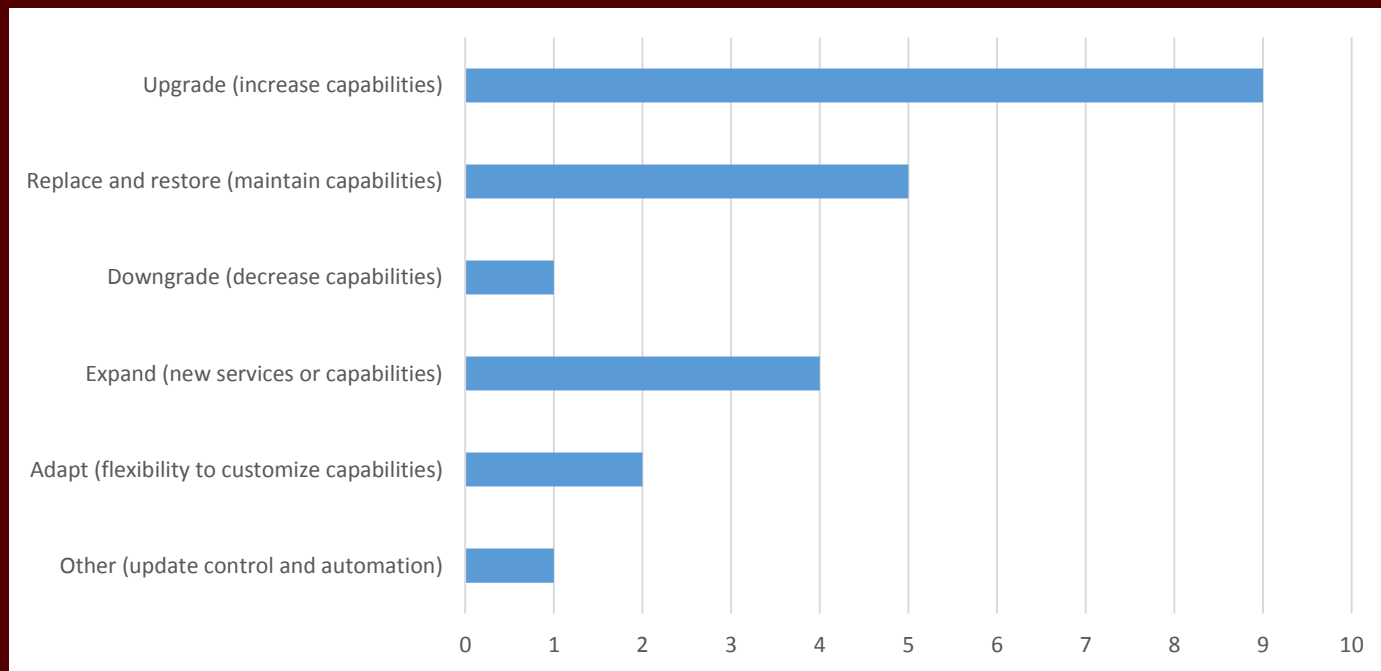


Would you be interested in joint equipment procurement (e.g. portable modular sources) and the establishment of a distributed research infrastructure focusing on HV engineering?



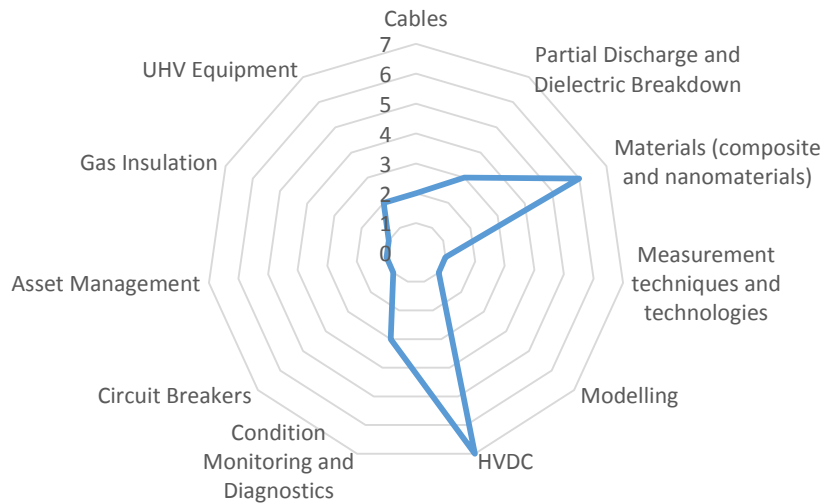
High Voltage Facilities

Renovation of laboratory without financial restrictions

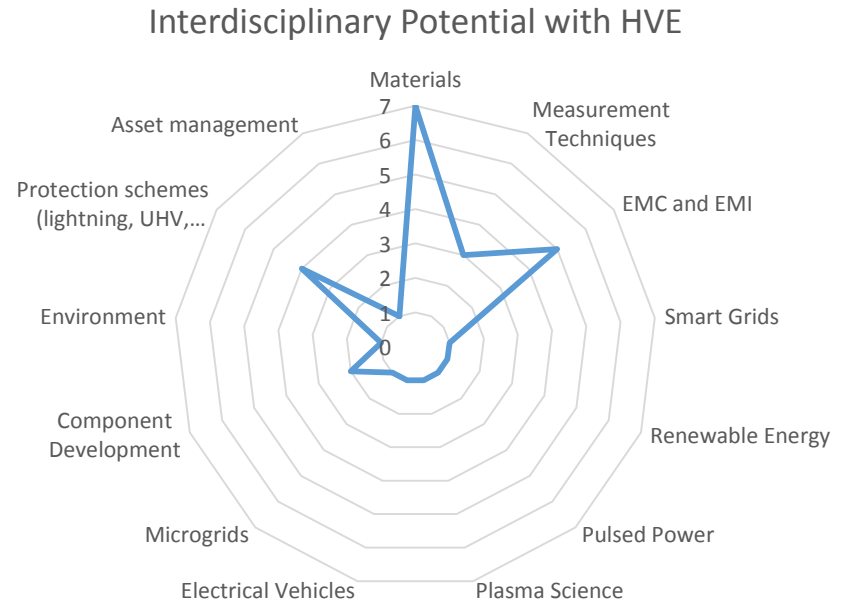


High Voltage Research

Current focus areas in high voltage research



Interdisciplinary potential with high voltage engineering



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Academia Results (12/2015)

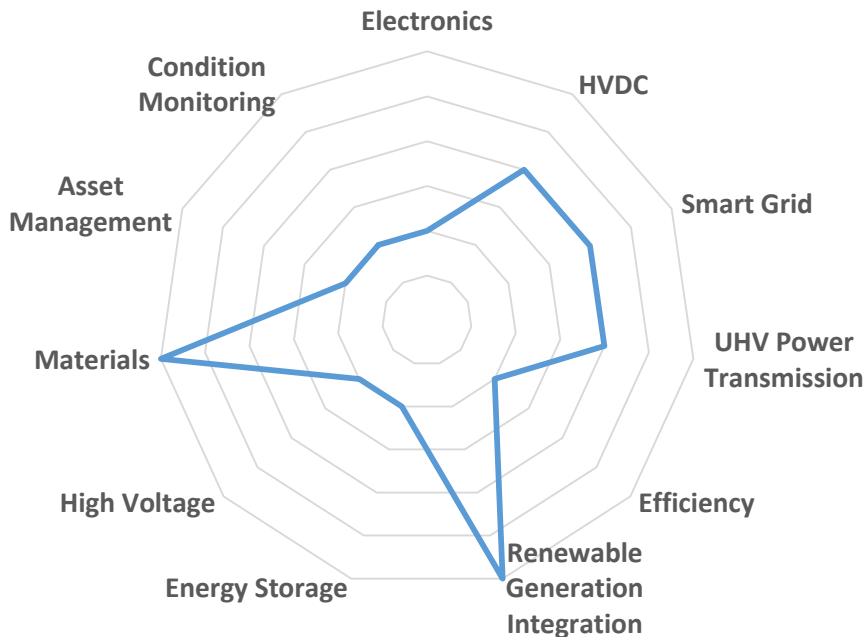
INDUSTRY RESULTS



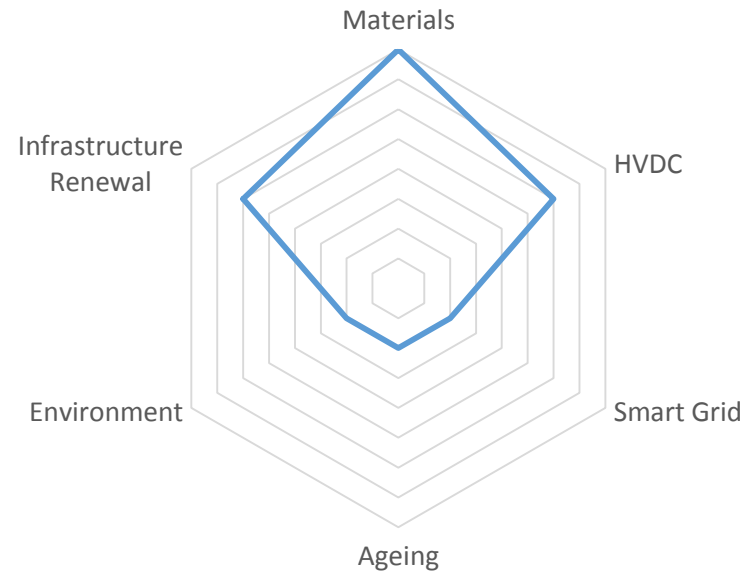
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Focus Areas in Electrical Engineering

TODAY

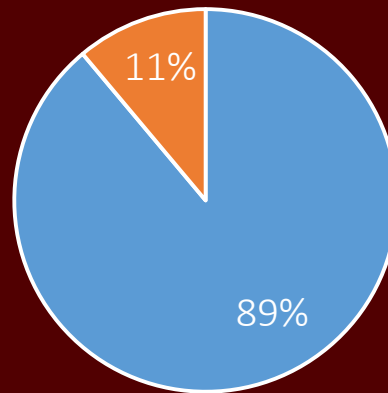


FUTURE

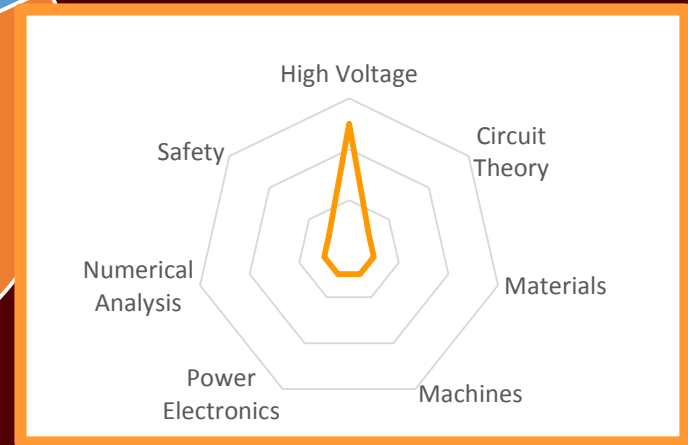
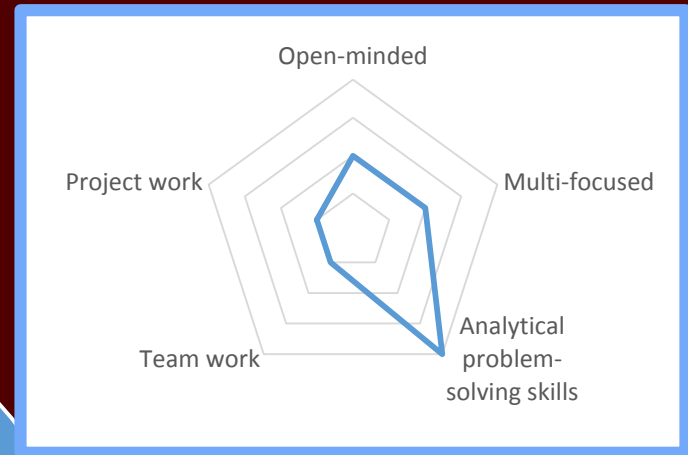
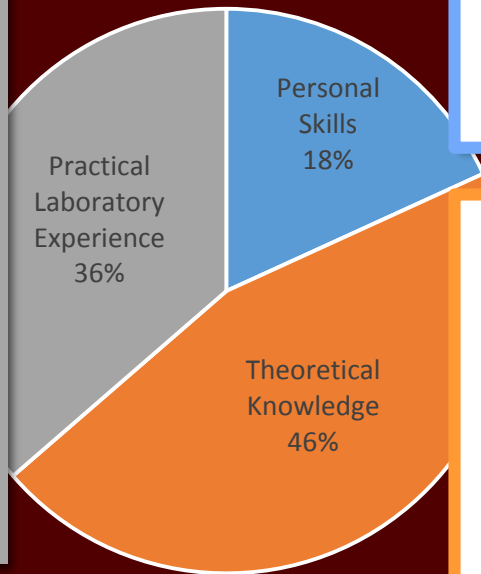
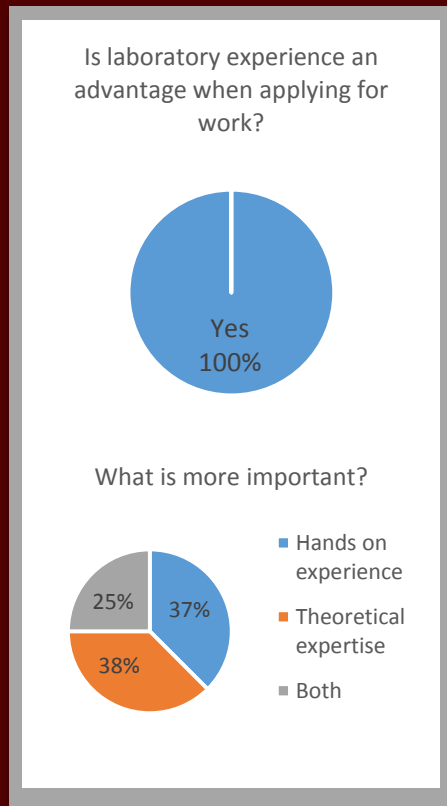


High Voltage Education

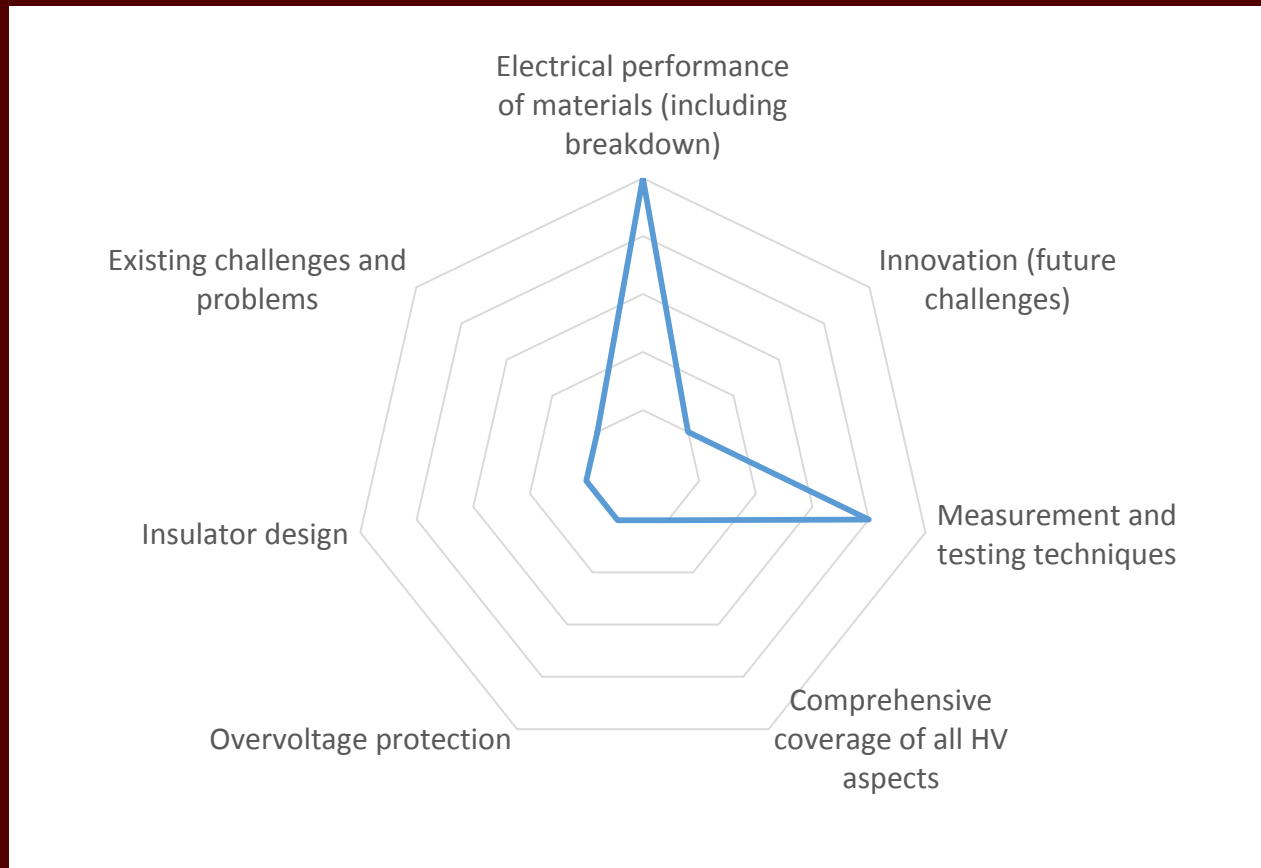
- Universities should prepare individuals for future challenges in high voltage engineering
- Universities should provide some basic knowledge, to be complemented by industry.



Skills and knowledge fresh graduates should have acquired from university

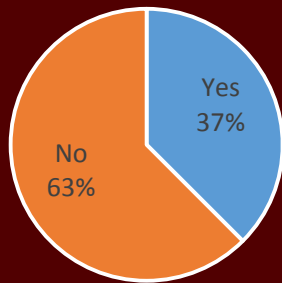


What should high voltage education focus on?



Testing and Evaluation Services

Do you need independent third-party testing services?



Main Equipment tested:

- Cables
- Insulators

Test types:

- Withstand (AC, DC, impulse)
- Dielectric testing
- Partial Discharge

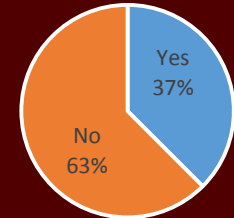
Criteria for selecting testing laboratory



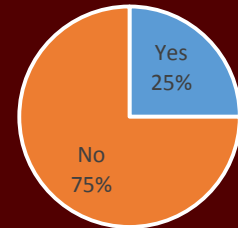
Other criteria: knowledge of personnel

Scale: 1 (not important)
5 (very important)

Is an annual contract for testing a good idea?



Reduced price for testing without evaluation report?



Report format?

37 % Simple display of data and results
63 % Comprehensive analysis including theoretical background



If you feel that this is not an accurate representation of the current state of high voltage engineering and its role in academia and industry, please forward the results and invite more participants to the survey.

Each answer is valuable!

Survey available online (MSU website):

<http://www.ece.msstate.edu/high-voltage-lab/high-voltage-survey/>



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Thank you!