ENERGY systems.

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larger interconnected generation, transmission and distribution systems
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Laboratory provides opportunities for developing instrumentation for
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students. Satellite, rocket and ground-based communication studies
research include communications, radar, lidar and sonar remote sensing,
instrumentation and microwave circuit design, electric power and energy
systems, digital and computer engineering, nanotechnology, controls
and robotics. Current research topics include high latitude satellite com-
munications, rocket telemetry, radio wave propagation, ultra-wide-band
wireless communications, electromagnetic and acoustic wave propaga-
tion, remote biomedical and environmental instrumentation, microwave
design, digital signal processing, digital and physical electronics, com-
puter applications, remote hybrid electric power systems, electric power
system design and analyses, electric power quality improvement, system
identification, simulation, computer-controlled systems, control theory,
robotics, and automation.

A number of on- and off-campus research facilities are available to
students. Satellite, rocket and ground-based communication studies
are carried out on campus and at Poker Flat Research Range—the only
university-operated rocket range in the world. The Sounding Rocket
Laboratory provides opportunities for developing instrumentation for
sounding rocket payloads. The Arctic Region Supercomputing Center
on campus provides a wide array of tools for digital system research.
Department research laboratories include microwave, wireless communic-
ations, ultra-wide-band technology, waves, power electronics/robotics,
instrumentation and digital laboratories.

Alaska’s environment and remote location provide uniqueoppor-
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