NDSU NORTH DAKOTA STATE UNIVERSITY
STUDENT FOCUSED • LAND GRANT • RESEARCH UNIVERSITY

NDSU Research and Creative Activity

Presentation to ND Interim Higher Education Committee

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Vice President

NDSU | RESEARCH AND TECHNOLOGY PARK

PIVOT Gallery and Equipment Database

[Joint initiative between NDSU and NDSU Research and Technology Park]

EDA University Center Grant
[to NDSU RTP]

- 5 years (2013-2018)
- Scope of work:
  - Technical Assistance
    - Business training & development
    - Marketing
    - Intro to capital
    - **Student Innovation Challenge**
  - Applied Research
    - **Build Database of research, equipment, and scholars**
    - Match university research with STEM industries
  - Disseminate Info
    - Website
    - Meetings & conferences
    - Collaboration with partners

EDA U.S. ECONOMIC DEVELOPMENT ADMINISTRATION

North Dakota DEPARTMENT OF COMMERCE

NDSU NORTH DAKOTA STATE UNIVERSITY

Research Database Objective

Build Database to identify, analyze and leverage assets on the NDSU campus in order to partner with private sector STEM companies.

- Improves access
- Easier to do business

Other potential users:

- Other universities
- Faculty and Researchers
- Students
- Government

Existing NDSU Campus Databases

- Accounting Asset Equipment List - Managed by NDSU accounting
- Core Research Laboratory databases
- Pivot - Personal profile and grant tracking
- Respective College databases - Independent and varied

Approach:

- Build on well maintained databases that already exists
- Begin with research equipment
- Review examples of university equipment websites
- Finish with human expertise

Database Activities

Make equipment listing usable

- From 2700 assets >$5K to 300+ assets >$35K
- Verified pubic use and contact information
- Located specs and pictures
- Classified assets into categories

Software Development

- Hired part-time web developer
- Selected *Drupal* as content management system
- Developed and tested
- Launched 22 June 2016

Added Faculty Scholars

- Leveraged *PIVOT* by purchasing *Pivot Gallery* ($2500)
- Updated *PIVOT* content
- Increased Faculty participation from ~ 50% to 80%
- Launched 8 Feb 2016

Database Demonstration

http://researchtoolbox.ndsuresearchpark.com

Next Steps

- Market Equipment Toolbox & Pivot Scholar Search
- Add smaller value assets
- Ongoing maintenance
- Encourage faculty to utilize & maintain Pivot Gallery
- Monitor usage
- Facilitate interactions

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Thank You!

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Equipment database

NDSU | RESEARCH AND TECHNOLOGY PARK **NDSU Research Toolbox**

Home | Colleges and Departments | Equipment Classifications | Inventory | Custodians

Search Scholars@NDSU

Welcome to the NDSU Research Equipment database.

Connect. Create. Collaborate.

Here is the place to start, if you are a company, individual or faculty member looking for cost-effective access to NDSU Core Laboratories and technical equipment. Search for capabilities and equipment by using keywords, equipment classification or by Colleges and Departments - you choose!

This site was created for businesses, university researchers, students, and others interested in specialized equipment and capabilities available at NDSU. The initial launch lists equipment with an acquisition cost over $35K with plans to expand the listing in the future.

Visit NDSU's **Search for Scholars website** if you are a looking for subject matter experts, research collaborators, or graduate school opportunities.

As a student-focused, land grant, research institution, **North Dakota State University** serves the citizens of the state and conducts research that also helps solve challenges of the nation and the world. NDSU research and creative activity is diverse, productive and thriving, and it holds much potential for further exploration and collaboration.

The vision of the **NDSU Research and Technology Park** is to be a catalyst for innovation in science and technology that will contribute to North Dakota's economic development. We are doing it right here, today, in a positive and forward-looking atmosphere with innovators and companies that embrace our global sensibility.

We looking forward to connecting with you!

Search

electron microscope

Search

Equipment Classifications

Process Equipment: Physical
Process Equipment: Biological
Materials Characterisation
Sample Measurement and Analysis
Large Scale Instruments
Infrastructure

Specialized Equipment

[Electron Microscope]

Home | Colleges and Departments | Equipment Classifications | Inventory | Custodians

Search Scholars@NDSU

Home / electron microscope / Search

Search

Search

Enter your keywords

electron microscope

Search

The search found 6 results in 0.359 seconds.

Search results

SCANNING ELECTRON MICROSCOPE

Inventory Classification

› Materials Characterisation > Electron/Ion Microscopy > **Scanning**

JEOL JSM-7600F high-resolution analytical scanning electron microscope
Schottky in-lens field-emission gun
Magnification range 25-1 million X
Resolution 1 nm at 15 kV, 1.5 nm at 1 kV, 0.8 nm at 30 kV for STEM
Thermo energy-dispersive X-ray analysis (silicon drift detector)
Detectors: in-lens secondary, in-lens backscatter, low-angle backscatter, in-chamber secondary, STEM Selectable bias to specimen stage for beam deceleration and surface-data enhancement
Hysitron PI-85 nanoindenter
JEOL IB-09010CP cross-sectional polisher

University Tag Number: 184467

Access Level:
Contact Custodian for availability

Department
Civil and Environmental Engineering

Custodian
Julie Hochhalter

Location Description
USDA NCSL Lab

Room Number: EMC 119

Classification Filter

- Scanning Tunneling (2)
- Atomic Force (1)
- Quantum Information (1)
- Scanning (1)
- Transmission (1)

Department Filter

- Civil and Environmental Engineering (3)
- RCA Research Operations (2)

Custodian Filter

- Jayma Moore (3)
- Greg Strommen (2)
- Julie Hochhalter (1)

Equipment 'Taxonomy

[General category, characterization, specific]

Home | Colleges and Departments | Equipment Classifications | Inventory | Custodians

Search Scholars@NDSU

Home / electron microscope / Transmission / Civil and Environmental Engineering / Jayma Moore / Search

Search

Search

Enter your keywords

electron microscope

Search

The search found 1 result in 0.028 seconds.

Search results

LAB6 ELECTROM MICROSCOPE

Inventory Classification

› Materials Characterisation > Electron/Ion Microscopy > **Transmission**

JEM-2100Plus TEM is a multi-purpose Transmission Electron Microscope, combining the proven optic system of the original JEM-2100 with an advanced control system for enhanced ease of operation. The JEM-2100Plus has three independent condenser lenses and produces the highest probe current for any given probe size, which allows for improved analytical and diffraction capabilities. The patented JEOL Alpha Selector™ allows a user the selection of a variety of illumination conditions, ranging from full convergent beam to parallel illumination.

University Tag Number: 179927

Access Level:
Contact Custodian for availability

Department
Civil and Environmental Engineering

Custodian
Jayma Moore

Location Description
USDA NCSL Lab

Room Number: EMC116-117

Classification Filter
☑ Transmission

Department Filter
☑ Civil and Environmental Engineering

Custodian Filter
☑ Jayma Moore

Example by Classification

[Mechanical > Hydraulic]

WABASH HYDRAULIC COMPR PRESS

Inventory Classification

› Infrastructure > Mechanical > **Hydraulic**

The Genesis Series reflects more than a half century of Wabash leadership in hydraulic press design and construction. Genesis Series presses are state-of-the-art hydraulic presses for compression molding of rubber, plastics and composites; also for laminating. It is rugged enough for 24 hour performance on the production floor, but works equally well as a precision laboratory press.

Genesis hydraulic lab presses are available in 15 through 150 ton capacities. The hydraulic system produces faster closing and opening speeds, making it ideal for use with many of today's advanced molding compounds. Optional heated platens are available for 500°F, 800°F and 1200°F operating temperatures, which are required for many other applications.

University Tag Number: 198932

Availability: Contact Custodian for availability

Custodian

› Alan Kallmeyer

Department

› Mechanical Engineering

Location
Dolve Hall

Room Number: 128

Acquisition Date: February 10, 2016

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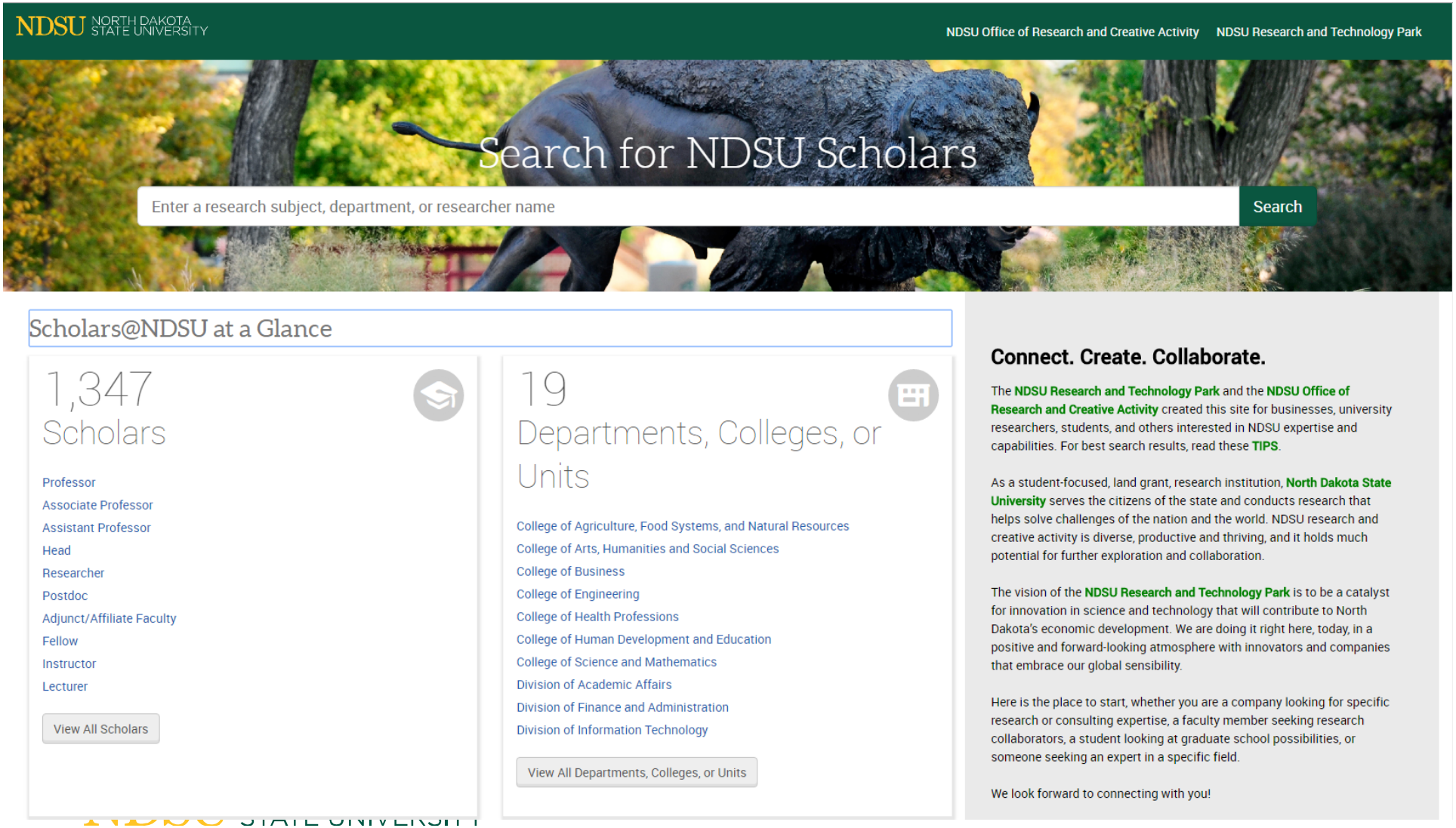
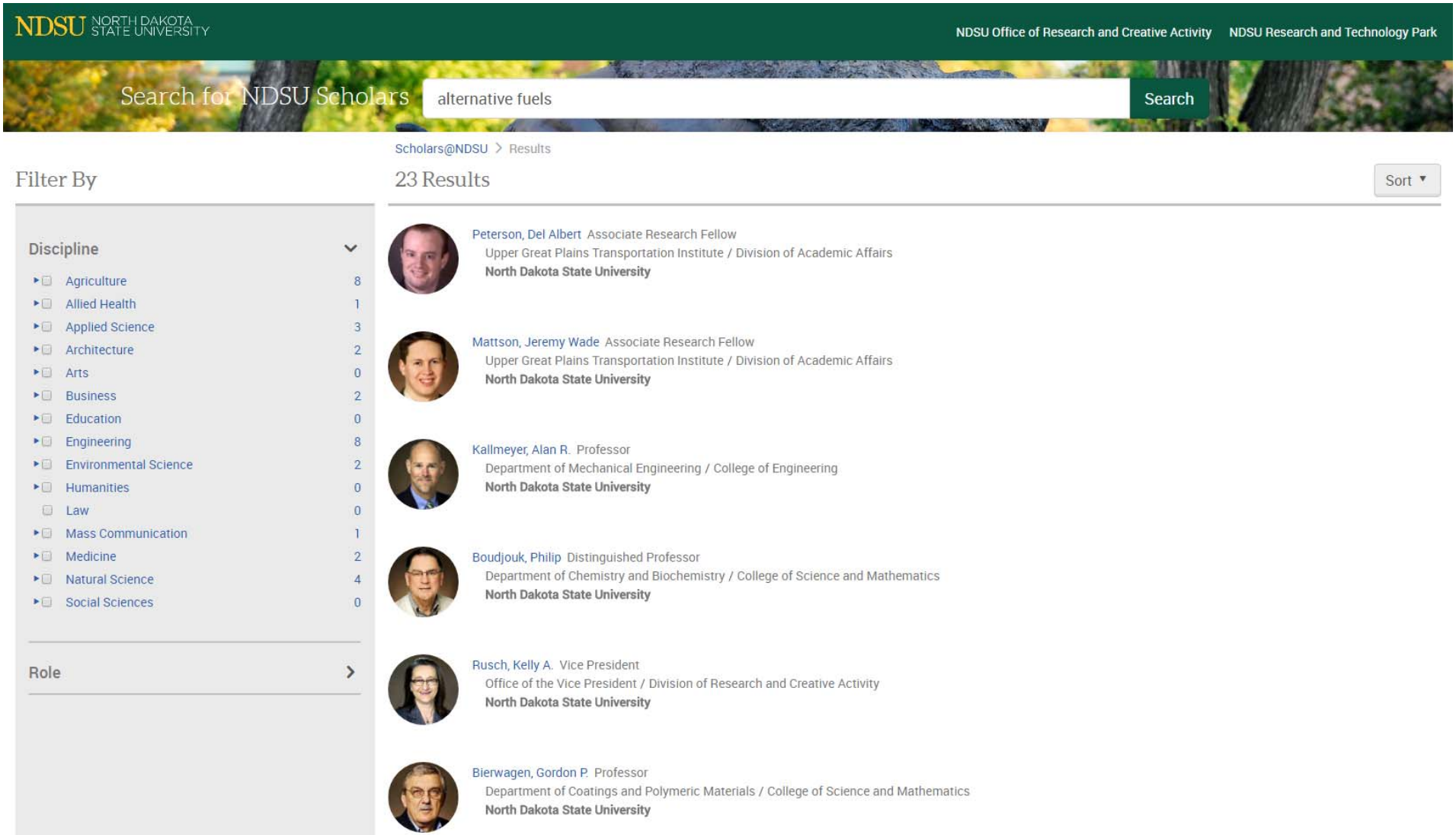
Pivot Gallery – NDSU

[Search for Scholars]



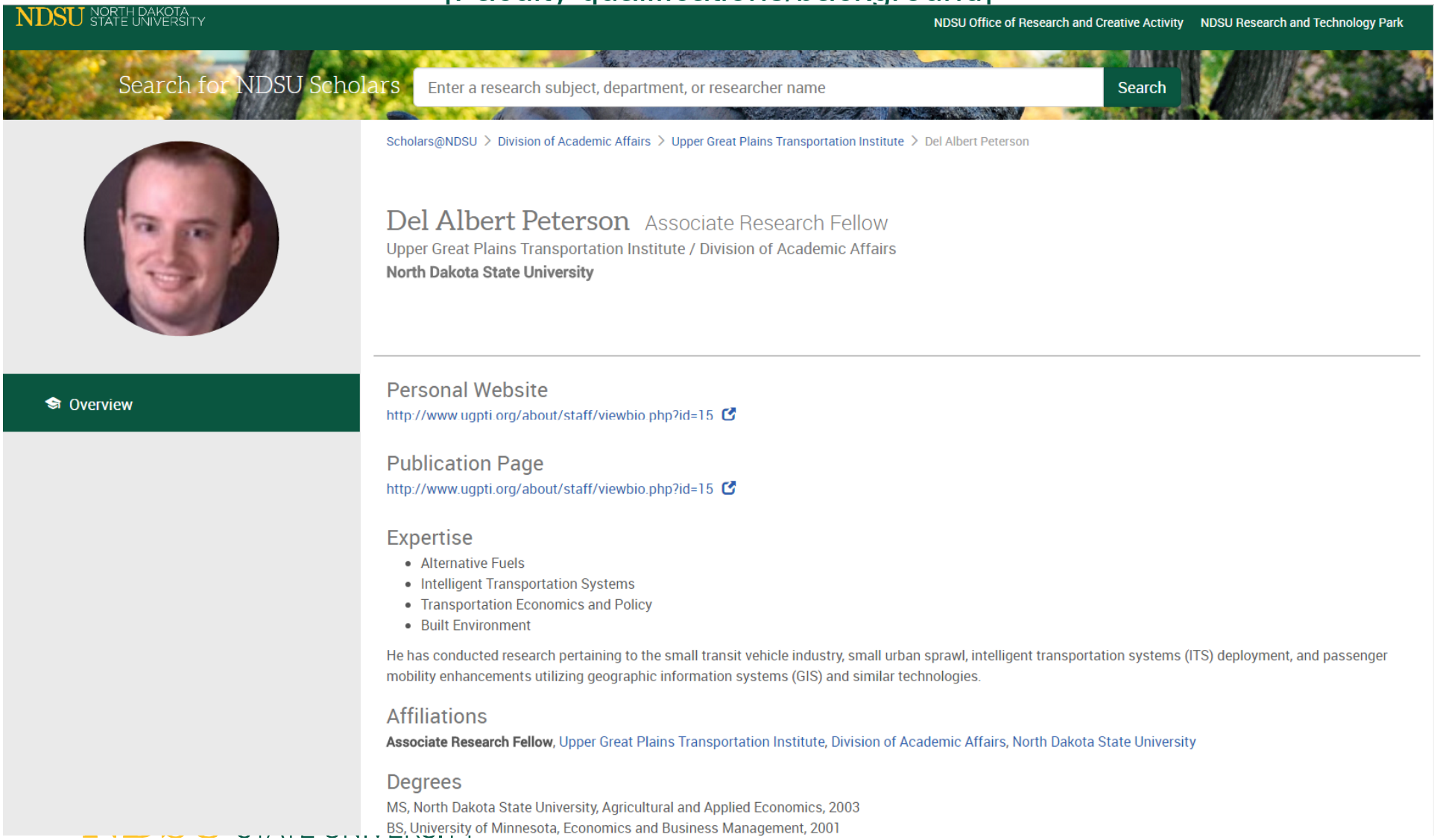
Example: Search for Scholars

[Alternative Fuels]



Drill down

[Faculty qualifications/background]



Intelligent
InSites™

Bobcat

pedigree
TECHNOLOGIES

JOHN DEERE
Electronic Solutions

MYRIAD
MOBILE

APPAREO

Cargill

NDSU NORTH DAKOTA
STATE UNIVERSITY