# The UTSR Gas Turbine Industrial Fellowship Program

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# Fellowship Program Description (1/2)

- Provides undergraduate and graduate-level engineering students with the opportunity to work at leading gas turbine industry sponsoring companies
- Provides the sponsoring companies an opportunity to recruit technical talent from a highly selective pool of applicants





# Fellowship Program Description (2/2)

- Fellows spend 10-12 weeks over a summer working at a sponsoring company
- Fellows get a lump sum stipend of \$11,500 (undergraduates) or \$13,500 (graduates)
- Companies pay the stipends
  - OEMs pay \$25,000 per year and get 2 Fellows
  - Non-OEMs pay \$12,500 and get one Fellow
  - Member companies can hire additional Fellows from the applicant pool, and they will also be part of the Program.





# **Typical Work Areas at Companies**

- Heat transfer
- Aerodynamics
- Combustion
- Thermodynamics
- Advanced materials and coatings
- Design
- Manufacturing
- Test and evaluation



#### NATIONAL ENERGY TECHNOLOGY LABORATORY

# Eligibility

- Must have a GPA of at least 3.0
- Must be US citizens or green card holders
- Undergraduates must complete their Junior year by June of the year that they work at the company





#### **Selection Process**

- Applicants provide transcript, letters of recommendation from faculty, description of technical area of most interest and list of companies they most want to work for
- Companies provide rank order of preferred applicants
- Offers are made for best match of company choices and applicants' choices



# Benefits to the Fellows



- Work experience in the gas turbine industry is an advantage in seeking jobs after graduation in industry or academia
- Work experience helps them decide which fields they like best within the GT industry
- Practical knowledge gained helps make their remaining academic work more relevant







- Host student Fellows proportional to dues level Assess some of the best students in the nation for future employment as they work on real world problems
- The students have been encouraged by their professors to apply and are interested in the gas turbine industry; an advantage in recruiting future employees







- Historically, 80% of the UTSR Fellows benefit the gas turbine industry
  - 70% of them accept jobs with companies in the gas turbine industry
  - Another 10% stay in academia, teaching and researching on gas turbine topics





### History

- The UTSR Program started in 1992 as part of DOE's Advanced Turbine Systems (ATS) Program.
- The Fellowship Program was added in 1995.
- Since 2005 there have been 150 Fellows, representing 52 US universities working at 19 US companies during their summer sessions.





# Status of the Fellowship Program

- Since the fall of 2010, Southwest Research Institute is implementing the program for NETL, with oversight from site support contractors for NETL.
- 2016 Fellowship Program data:
  - 50 Eligible applicants
  - 11 offers made to fill the 9 slots
  - 9 Fellows selected (18% of eligible applicants)
  - 9 Universities
  - 6 Host Companies





# Fellowship Host Companies 2016

- GE
- Siemens
- Solar Turbines
- FlexEnergy
- Florida Turbine Technologies
- Southwest Research Institute



# 2016 Fellows (1/2)



Fellow	University	Company
Depperschmidt, Daniel	University of Alabama	Siemens
Gilliams, Casey	University of Florida	Siemens
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Gimmler, Christopher	U. of Central Florida	GE
LaFaso, Robert	University of Wyoming	Solar Turbines
Lim, Jamie	Georgia Institute of Technology	FlexEnergy



# 2016 Fellows (2/2)



Fellow	University	Company
Matheson, lan	Brigham Young University	Southwest Research Institute
McGlennen, Matthew	Montana State University	GE
Phillips, Kara	University of California, Irvine	Solar Turbines
Sisler, Andrew	West Virginia University	Florida Turbine





The UTSR Fellowship Program is providing valuable experience for the Fellows and a source of trained engineers for the gas turbine industry.

