

The Air Force Research Laboratory/ Dayton Area Graduate Studies Institute Ohio Student-Faculty Graduate Fellowship



Graduate Student Application – 2015/2016

Applications will be accepted between December 15, 2015 and January 29, 2016. Please review all fellowship guidelines before completing the application.

Note: Partially completed applications cannot be saved. Please plan accordingly.

Please fill out the application electronically and print the completed form. If you need more space than provided on the form, type the information on separate sheets and attach them to your application. Put your name on any extra pages, and for reference indicate what section of the application you are addressing.

The completed Graduate Student Application form is a part of an application package consisting of:

- Graduate Student Application Form
- Official Transcript(s)
- Letters of Recommendation
- Faculty Application Form
- Research Proposal
- Budget Proposal Form

Legal resident of what state? | Ohio

• Signature Form

The complete package, including all required forms and information, must be received by DAGSI no later than 5 p.m. EST January 29, 2016. No applications will be accepted after that date. Complete applications may be scanned and emailed to kelam@dagsi.org, faxed to 937-781-4005, or mailed or hand delivered to DAGSI at the address below:

DAGSI, 3155 Research Blvd, Kettering, OH 45420

This form is subject to the Privacy Act of 1974 (5 USC 552A).

| I GENERAL INFORMATION (All general information fields are required) | | | |
|---|---|--|--|
| First Name | Admir | | |
| Middle Name | | | |
| Last Name | Makas | | |
| Permanent Address | 4148 Reed Way | | |
| City | Tipp City | | |
| State | ОН | | |
| Zip | 45371 | | |
| Country | USA | | |
| Mailing Address | 4148 Reed Way | | |
| City | Tipp City | | |
| State | ОН | | |
| Zip | 45371 | | |
| Email Address | makas.2@wright.edu | | |
| Date of Birth (mm/dd/yyyy) 05/30/1984 | | | |
| Home Phone Numbe | r 719-321-8269 | | |
| Daytime Phone Number 719-321-8269 | | | |
| Citizenship (You must be a U.S. Citizen to apply) US Citizen | | | |
| City, State and Count | City, State and Country of Birth Sarajevo, Bosnia and Herzegovina | | |

| VOLUNTARY INFORMATION | | |
|---|--|--|
| The following information is provided voluntarily. It is used in various reports and surveys of state and federal governments and has no influence or bearing on the awarding of fellowships. | | |
| Gender • Male | | |
| Female | | |
| | | |
| Marital Status O Single | | |
| Married Married | | |
| Divorced | | |
| (Widowed | | |
| Ethnia Pashayayand A Mikita Nan Hisnania | | |
| Ethnic Background White Non-Hispanic Black or African-American | | |
| Asian or Pacific Islander | | |
| Hispanic or Latino | | |
| American Indian or Alaskan Native | | |
| O Other | | |
| II PROGRAM INFORMATION | | |
| | | |
| Which research topic are you proposing to pursue? Refer to the table of research topics on the DAGSI web site. | | |
| Title Aerothermoelastic Analysis Methodologies for Aircraft Design | | |
| Topic Number RQ16-36 | | |
| AFRL Sponsor Dr. Philip S. Beran, Philip.Beran@us.af.mil (Name and Email Address) | | |
| Who is the faculty member who will work on this topic with you? | | |
| Name Dr. Ramana V. Grandhi | | |
| Title/Academic Rank Distinguished Professor of Mechanical and Materials Engineering | | |
| What level of fellowship award are you applying for? (Should be consistent with your information in Section III.) MS Ph.D. | | |
| When do you anticipate spending the required research time at AFRL? Summer 2016 | | |
| How do you anticipate using AFRL and/or university facilities and resources in support of your research? Include an estimate of any computer time required. Students should contact the AFRL topic sponsor(s) listed as well as their faculty partners to discuss the anticipated activities. | | |
| Proposed research work is computer based. Wright State University and AFRL have sufficient computer access with the accompanying required software such as ABAQUS, MATLAB, NASTRAN, ASTROS that may be used throughout the reseach work. Furthermore, frequent travel to AFRL is expected to meet with the AFRL scientists, which work in the Multidisciplinary Science and Technology Center (MSTC). | | |
| | | |

III ACADEMIC BACKGROUND Current Highest Technical Degree: OBS Date awarded or expected (mm/yyyy) Date awarded or expected (mm/yyyy) ● MS 08/2011 Other (Explain): O BS Highest Degree You Anticipate Holding as of 8/1/2016? MS \bigcirc MS Academic Program Enrollment as of Fall Term, 2016: 💽 Ph.D. Grade Point Average: (Converted to 4.0 System, i.e., A=4.0; B=3.0; C=2.0; D=1.0; F=0.0) BS 3.3 3.7 MS Ph.D. 4.0 Colleges and Universities Attended List in chronological order, beginning with the current or most recent college/university. College/University City/State Major Field of Study Date Inclusive Dates Degree Awarded (mm/yyyy - mm/yyyy) or Expected (mm/yyyy) Wright State University, Dayton OH, 06/2015 - Present, Mechanical Engineering, Ph.D. expected, 07/2018 Arizona State University, Tempe AZ, 09/2009 - 07/2011, Mechanical Engineering, MS, 08/2011 University of Colorado, Colorado Springs CO, 09/2002 - 05/2007, Mechanical Engineering, BS, 05/2007

List any fellowships or scholarships relevant to your field that you have been awarded.

List any significant academic honors or other recognition you have received since entering college/university.

Received Outstanding Undergraduate of the Year Award from University of Colorado

IV RESEARCH BACKGROUND

Provide a summary of your research experience. This might include research at the undergraduate level, through summer or part-time employment, or in work-study or internship programs. Describe your role in the research and what you learned from the experience. Cite any professional publications, posters, or presentations you have made or contributed to. If you have no direct research experience, please describe any activities you have undertaken that you think have prepared you sufficiently to undertake research through the AFRL/DAGSI program.

During my tenure at Arizona State Univ. I worked as a research assistant while attaining my MS degree. Reseach done focused on effects of rolling induced anisotropy on fatigue crack initiation and small crack growth in rolled aluminum alloy AL2024. I designed test samples and fixtures through the use of FEA techiques, which were subsequently used in the experimentation phase. Preped samples were tested using single and multi-axis tensile machines. Tested samples were post processed using optical and SEM microscopes in order to quantify fatigue performance of the subject alloy. Data acquired from the experimentation phase was used to model fatigue crack behavior using computer simulations for various aircracft structures. Research conducted was part of a greater Multidisciplinary Univeristy Research Initiative (MURI) that dealt with structure health monitoring in aerospace vehicles. Reseach was conducted under the Airforce grant (FA95550-06-1-0309).

Research done was presented at the 2011 TMS Conference and 2011 SPIE Conference

V EMPLOYMENT BACKGROUND

| List in chronological order, starti | no with the most recent | all relevant work ex | perience includin | o military service |
|-------------------------------------|-------------------------|------------------------|-------------------|---------------------|
| List in chionological oraci, starti | ig with the most recent | , an icic vant work cx | perience, meradin | g minitary service. |

Employer Location Position Inclusive Dates Full/Part Time (City/State/Country if non-US) (mm/yyyy - mm/yyyy)

Ftech RnD, Troy/OH, Design Engineer, (11/2012-06/2015), Full Time Chrysler/FIAT, Detroit/MI, Test Engineer, (08/2011-06/2012), Contract Chromalloy INC, Phoenix/AZ, Design Engineer, (07,2007-09/2009), Full Time

VI REFERENCES

List the name, position, and contact information for: 1) the faculty member you will work with on the project; and 2) one other person who is able to provide feedback on your capability and potential for AFRL/DAGSI research. Each reference should provide a one-page signed letter of recommendation for the student. If you are doing a Ph.D.-level project, the letter from your faculty co-researcher must include a statement addressing the level of assistance provided to you in preparing the proposal.

- Faculty Partner

| Name | Dr. Ramana V. Grandhi | | |
|---|---------------------------|--|--|
| Academic Rank/Title Distinguished Professor of Mechanical and Materials Engineering | | | |
| Mailing Address 3640 Col. Glenn Hwy | | | |
| City | Dayton | | |
| State | ОН | | |
| Zip | 45435 | | |
| Phone | 937-775-5090 | | |
| Email | ramana.grandhi@wright.edu | | |

- Other Reference

| Name Dr. | me Dr. Joseph C. Slater | | |
|---|-------------------------|--|--|
| Academic Rank/Title Professor of Mechanical and Materials Engineering | | | |
| Mailing Address 3640 Col. Glenn Hwy | | | |
| City | yton | | |
| State | | | |
| Zip 454 | 35 | | |
| Phone 937 | 7-775-5005 | | |
| Email | eph.slater@wright.edu | | |

VII CERTIFICATION

I certify that to the best of my knowledge the preceding information and all attachments provided herewith are true and accurate. I understand that any misrepresentation of facts on this application will invalidate this application and cause me to be ineligible for an AFRL/DAGSI research fellowship.

SIGNATURE _

DATE __01/22/2016