CALL FOR PAPERS & PRESENTATIONS
Abstracts due by September 14, 2015 at http://go.asme.org/JRC
2016 Joint Rail Conference
University of South Carolina
Columbia, SC
April 12-15, 2016
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**JRC 2016** is the major, multidisciplinary North American railroad conference encompassing all aspects of rail transportation and engineering research. Individuals interested in making presentations or giving papers are encouraged to submit abstracts. Topics of interest include but are not limited to:

**Railroad Infrastructure Engineering**
Design, engineering, and construction of track and bridge structures. Geotechnical engineering of track substructure and right-of-way. Best practices and advances in technology for the inspection and maintenance of the railroad infrastructure.

**Rail Equipment Engineering**
Motive power technology, vehicle/track interaction, wheels, couplers, components, rolling stock design, manufacturing, materials, and maintenance.

**Planning and Development**
Project management, planning & financing, new start and expansion development, service planning, environmental impact, and workforce development.

**Urban Passenger Rail Transport**
Investigations, insights, innovations, and implementations in all aspects of urban passenger rail transport.

**Signal, Train Control and Communications Engineering**
Systems integration, track and wayside components, equipment components, positive train control, interoperability, communications and microprocessor control.

**Vehicle-Track Interaction**
Wheel/rail contact, best practices in testing methods and modeling tools, passenger and freight applications.

**Energy Efficiency and Sustainability**
Energy conservation and efficiency, energy storage modeling, hybrid vehicles, emissions reduction and control and alternative energy sources.

**Service Quality and Operations Research**
Service availability and reliability, capacity models, impacts of aging equipment on service quality, transport mode integration especially with high-speed rail, passenger information systems and passenger reservation systems, freight railroad network optimization, asset planning, and train scheduling.

**Electrification**
Catenary design, third rail design, traction power substation design, materials, safety, efficiency, electrification approaches, design for high speeds, electromagnetic compatibility (EMC), corrosion control, load flow simulation, energy savings, energy storage devices, regenerative braking, smart electrical supply.

**Safety and Security**
System safety approaches, safety data management, risk analysis approaches, accident avoidance, accident survivability, train and employee safety, human-factors-informed safety improvements, hazmat risk management, security assurance, emergency preparedness and response.

Abstracts may be submitted to: [http://go.asme.org/JRC](http://go.asme.org/JRC). Please provide abstracts in English and limit size to 400 words. Paper submittal is encouraged but not required. Interested authors will be notified of abstract acceptance. Conference papers will be peer-reviewed and published in proceedings.

The ASME Rail Transportation Division is offering a limited number of conference scholarships. For specific details and questions regarding the scholarship program, please contact Monique Stewart, [FRA-RSEC.PMO@dot.gov](mailto:FRA-RSEC.PMO@dot.gov).

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**Joint Rail Conference co-sponsoring and partnering organizations:**

[ASME](https://www.asme.org)
[IEEE](https://www.ieee.org)
[ASCE](https://www.asce.org)
[AREMA](https://www.arema.org)
[IEEE](https://www.ieee.org)
[APTA](https://www.apta.com)
[TRB](https://www.trb.org)
[NURail Center](https://www.nurail.org)
[Railway Applications Section](https://www.railwayapps.org)
The American Society of Mechanical Engineers (ASME) Rail Transportation Division (RTD) continues to be a strong supporter of collegiate researchers, both professors and students, who play a vital role in the advancement of the rail industry. To this end, the ASME RTD offers the ASME RTD Graduate and Undergraduate Student Scholarships, which give students the opportunity to network with rail professionals, present rail research publications, and exchange ideas on rail technological innovations and solutions at the ASME Joint Rail Conference (JRC). Most importantly, the scholarships increase the awareness of the rail engineering discipline from both an academic and professional perspective.

Since 2011, the ASME Rail Transportation Division has awarded $73,850.00 in student conference scholarships to 71 deserving undergraduate and graduate students enrolled at U.S. colleges and universities with an interest in rail.

In support of the 2015 ASME Joint Rail Conference, a total of 20 Graduate Student Scholarship applications and 3 undergraduate applications have been accepted.

Please note that additional scholarship details and requirements may apply. For additional scholarship details and requirements, please visit the 2015 ASME JRC website. Scholarships will be offered again for the 2016 JRC.

ASME RTD Graduate Student Conference Scholarship

Purpose: Fund travel, lodging, and conference registration expenses for scholarship awardees selected to attend and present their research publication at the ASME Joint Rail Conference.

Award Amount: $1,100.00 USD

Requirements:

- The student must be enrolled full-time and attending a U.S. college or university.
- The student must submit an abstract(s) and written paper(s) for the ASME Joint Rail Conference and have them accepted through the publication process. **Note:** *If you are an undergraduate student who has submitted an ASME technical paper for the conference, you are not required to submit an essay, but you are required to submit the undergraduate application to be considered for the undergraduate scholarship.*
- The paper topic(s) must be relevant to the rail industry.
- The student must be lead author of the accepted paper(s).
- The student must complete and return the ASME RTD Graduate Student Scholarship application to rtdscholar@gmail.com by the deadline specified.
- The student must receive written notification from the ASME RTD Scholarship Committee indicating award of the scholarship.
- The student must deliver an oral presentation of the paper(s) in person at the conference.
- In order to be issued the scholarship, the student must be registered for the full conference as a student and must provide a completed Request for Taxpayer Identification Number and Certification Form (W-9) in PDF format for his/her college/university. The completion of the form is required for tax purposes and will need to be returned to the Scholarship Program Chair by the deadline specified. **Note:** *W-9 Forms are not requested until after students have been notified of scholarship award and should indicate college/university tax information, not the applicant's tax information. In addition, only one W-9 Form should be submitted per college/university.*
**ASME RTD Undergraduate Student Conference Scholarship**

**Purpose:** Fund travel, lodging, and conference registration expenses for scholarship awardees selected to attend the ASME Joint Rail Conference.

**Award Amount:** $850.00 USD

**Requirements:**
- The student must be enrolled full-time and attending a U.S. college or university.
- The student must be enrolled in an undergraduate engineering program at their university, college, or technical college.
- The student must be of Junior or Senior status.
- The student must submit a minimum 250-word essay outlining why they should be selected to attend the conference and what they hope to gain through attendance (or what the student could contribute to the rail industry). Or, alternatively, a minimum 250-word essay can be submitted that suggests a solution to a real-world rail industry problem.

**Note:** If you are an undergraduate student who has submitted an ASME technical paper for the conference, you are not required to submit an essay, but you are required to submit the undergraduate application to be considered for the undergraduate scholarship. If your technical publication is accepted and you are awarded the scholarship, the award will be in the amount of $850.00 USD.

- The student must complete and return the ASME RTD Undergraduate Student Scholarship application and essay to rtdscholar@gmail.com by the deadline specified.
- The student must receive written notification from the ASME RTD Scholarship Committee indicating award of the scholarship.
- In order to be issued the scholarship, the student must be registered for the full conference as a student and must provide a completed Request for Taxpayer Identification Number and Certification Form (W-9) in PDF format for his/her college/university. The completion of the form is required for tax purposes and will need to be returned to the Scholarship Program Chair by the deadline specified. **Note:** W-9 Forms are not requested until after students have been notified of scholarship award and should indicate college/university tax information, not the applicant’s tax information. In addition, only one W-9 Form should be submitted per college/university.

In addition to the $850.00 USD undergraduate scholarship award for reimbursement of travel-related expenses to attend the conference, one undergraduate student will be selected to receive an additional award for “Best Essay” based on the quality of his or her essay. Details of the award will be provided during the conference banquet where the award will be presented.

**COMPLETE YOUR PROFILE ON ASME.ORG**

Have you filled out your profile in ASME.org? If not, you should make this a priority as it allows you access to the Rail Transportation Division Group Page as well as your Technical Committee Group page. If you have a LinkedIn account, you can quickly import information to complete your ASME.org profile.

Once you complete your profile, you can then participate in an existing online group or create your own group based on a specific engineering discipline, your interests, or even your university alumni. You manage group participation, content, tools, and activities. The rich suite of ASME.org functionalities makes it easy for you to lead and grow your own group. It's a great opportunity to network, collaborate, and showcase your leadership skills to like-minded...
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