RADFX SCHEDULING TOOL

Authors:

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Sponsors:

Michael Mckenna, MDA   Scale Micro Electronics

Background:

MDA sponsored a Computer Science capstone from the University of Tennessee at Chattanooga to create a tool to assist in the process of requesting and allocating radiation test time to users

For beta testing, contact Daniel Loveless:
Daniel-Loveless@utc.edu

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What if I told every radiation test engineer in this room that they have been wasting their time?

Radiation testing coordination is outdated:
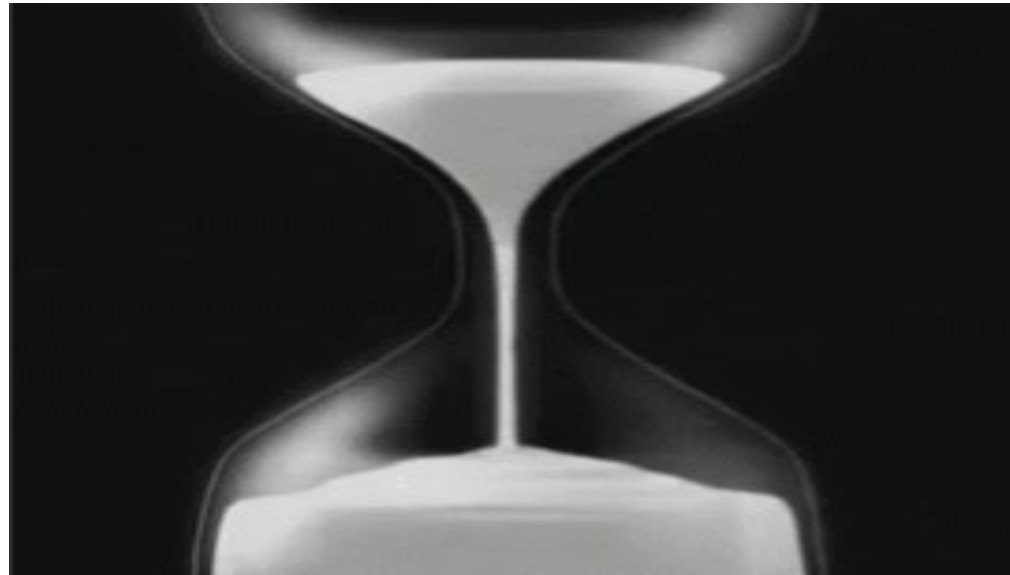
Across multiple facilities there is little organization for managing and allocating beam time to multiple testers

Communication is done through outdated spreadsheets and email

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Why is there a lack of organization?

What if there was something better to connect facilities and testers?

Industry | Academic | Government
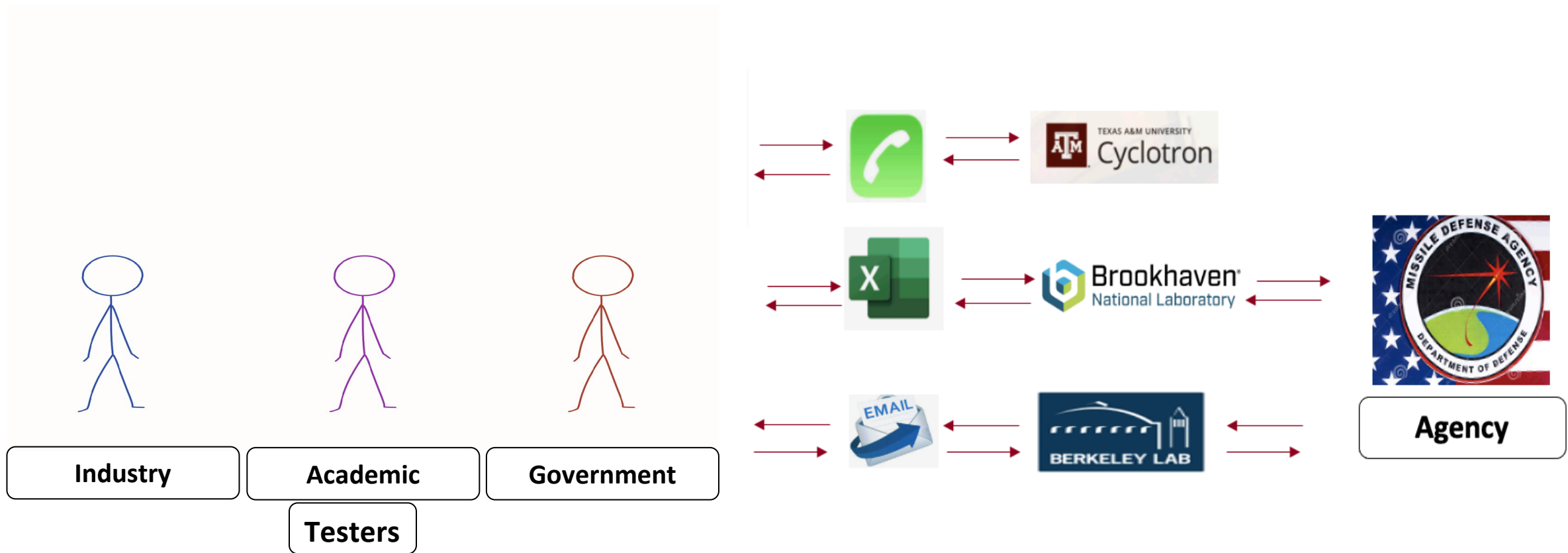
Testers

Our Solution: RADFX

Based off feedback from multiple facilities, testers, and agencies, RADFX was created: This protype will be funded by the Missile Defense agency through a SBIR

❑ Any tester can access this site and request test time for any facility

❑ Functions such as our built-in calendar aid facility managers in scheduling beam time

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Main Focus: Ease of Use

Agency **If needed**

☐ Reduce the amount of time spent coordinating

☐ Edit and store fundamental information for each facility

Tester

Tester

Tester

Common Web Application: RADFX

Radfxproject@hotmaail.com   RADFX   Admin Profile Request Schedule About

Log Out

Radiation Effects Testing

Engineering electronics for high emission environments demands a unique analysis of the component. Creating the desired atmosphere within the comfortable confines of earth's magnetic field can come with prohibitive costs and extensive regulatory concerns. Our service streamlines the test request process for multiple facilities and is dedicated to the optimization of particle accelerator schedules. Once your account has been approved, you can search the ion and energy combinations offered at each of our participating facilities. When your customized request is completed, you will receive scheduling updates while our facility managers and administrators adapt to the demands of urgent requests and routine maintenance.

Brookhaven National Laboratory

TEXAS A&M UNIVERSITY Cyclotron

BERKELEY LAB

One site to rule them all

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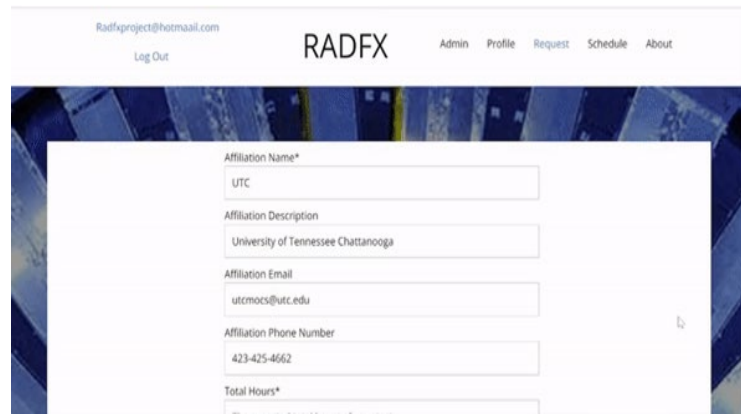
How do all users benefit from RADFX?

Users have the option to view this site from three different user views:

Tester View:
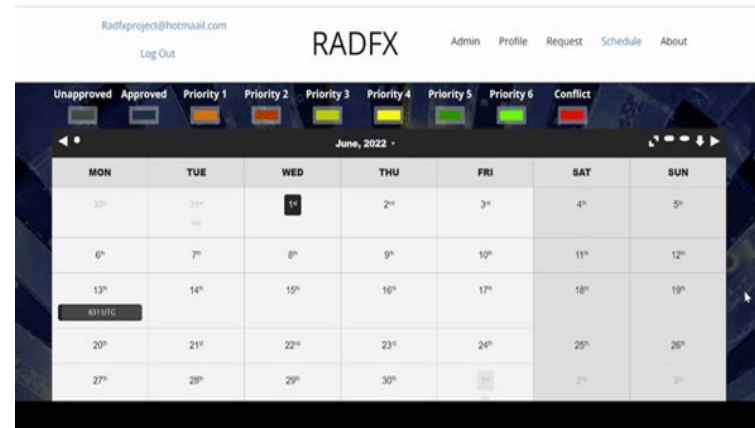
Users wanting to use the cyclotron

Facility Manager View:

Users scheduling cyclotron access

Admin/Agency View:

Users administering cyclotron access

- ❑ Send requests to any facility
- ❑ View public calendar
- ❑ Check specific facility assets

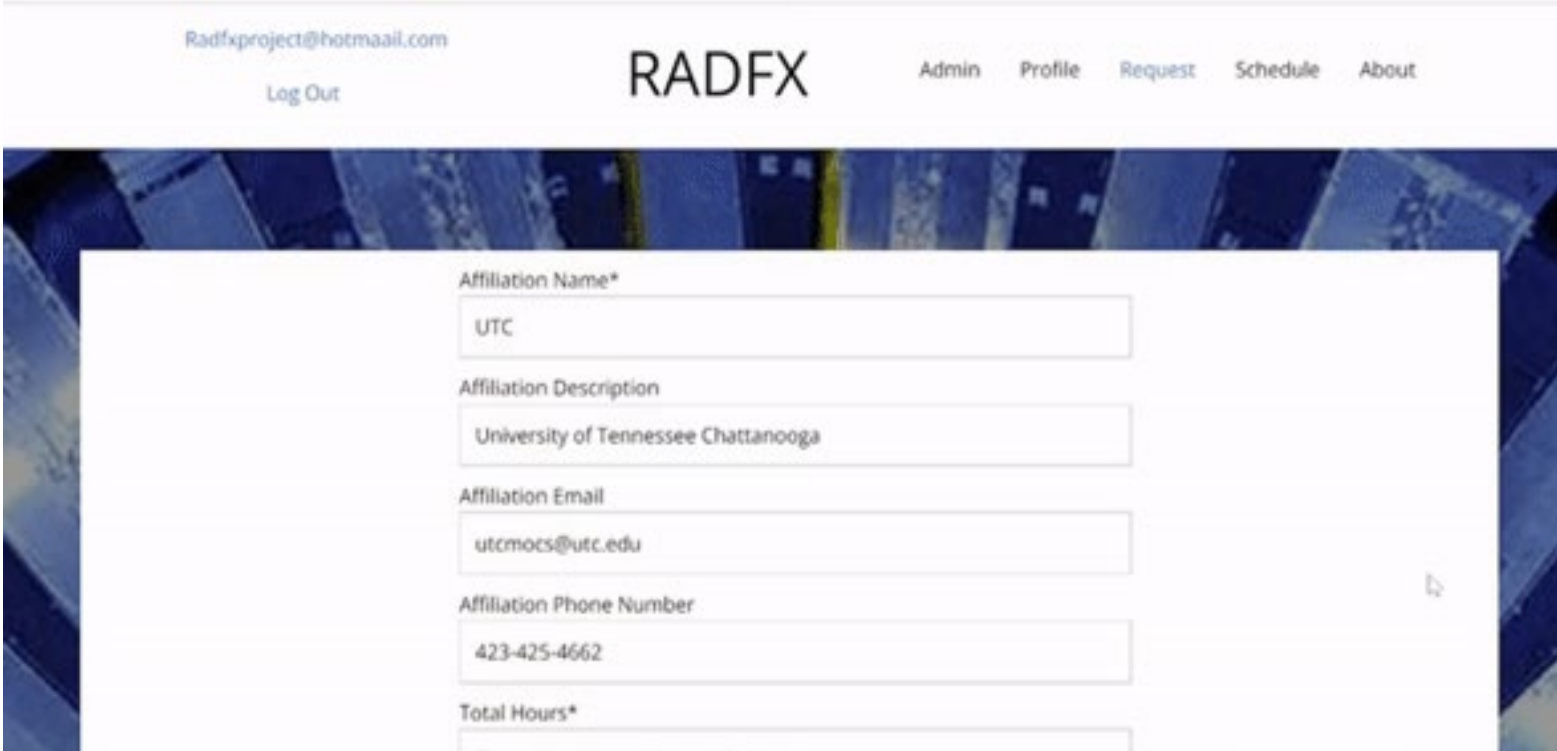- ❑ Accept/Deny beam time requests
- ❑ Edit any form specific to facility
- ❑ Schedule with ease

- ❑ If facilities use an Agency
  - ❑ Access to all features
  - ❑ Accept/Deny new user

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Tester view: How do Tester's request beam time?

All in-one request form

1. Enter Contact information

2. Request hours, date, and shifts

3. Choose facility

4. Select preferred ions
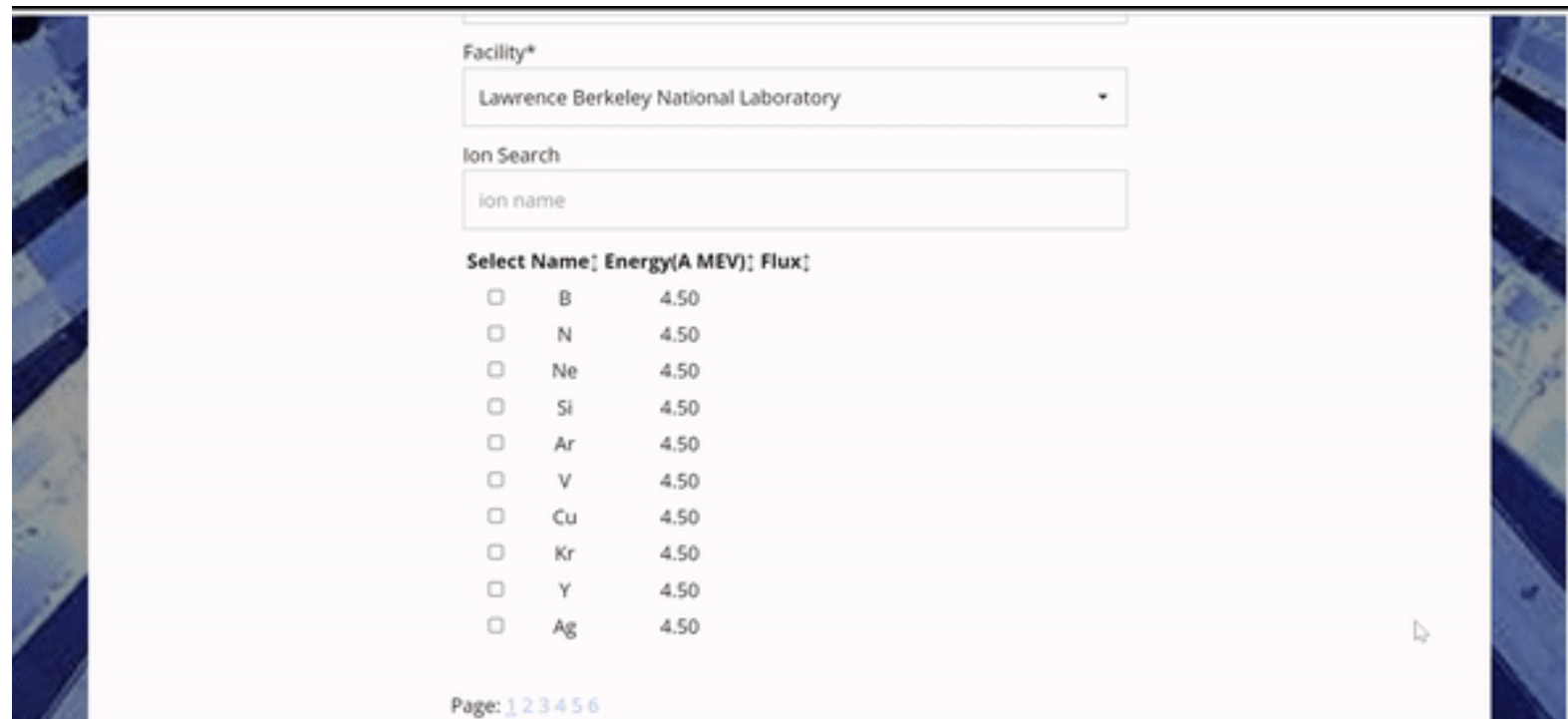
5. Submit

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Tester View: Ion Capabilities Via Request form

Easily sort and search through ions to create a user test plan

❑ Reveals available ions for a facility

❑ Select multiple ions

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Tester View: User Profile Page
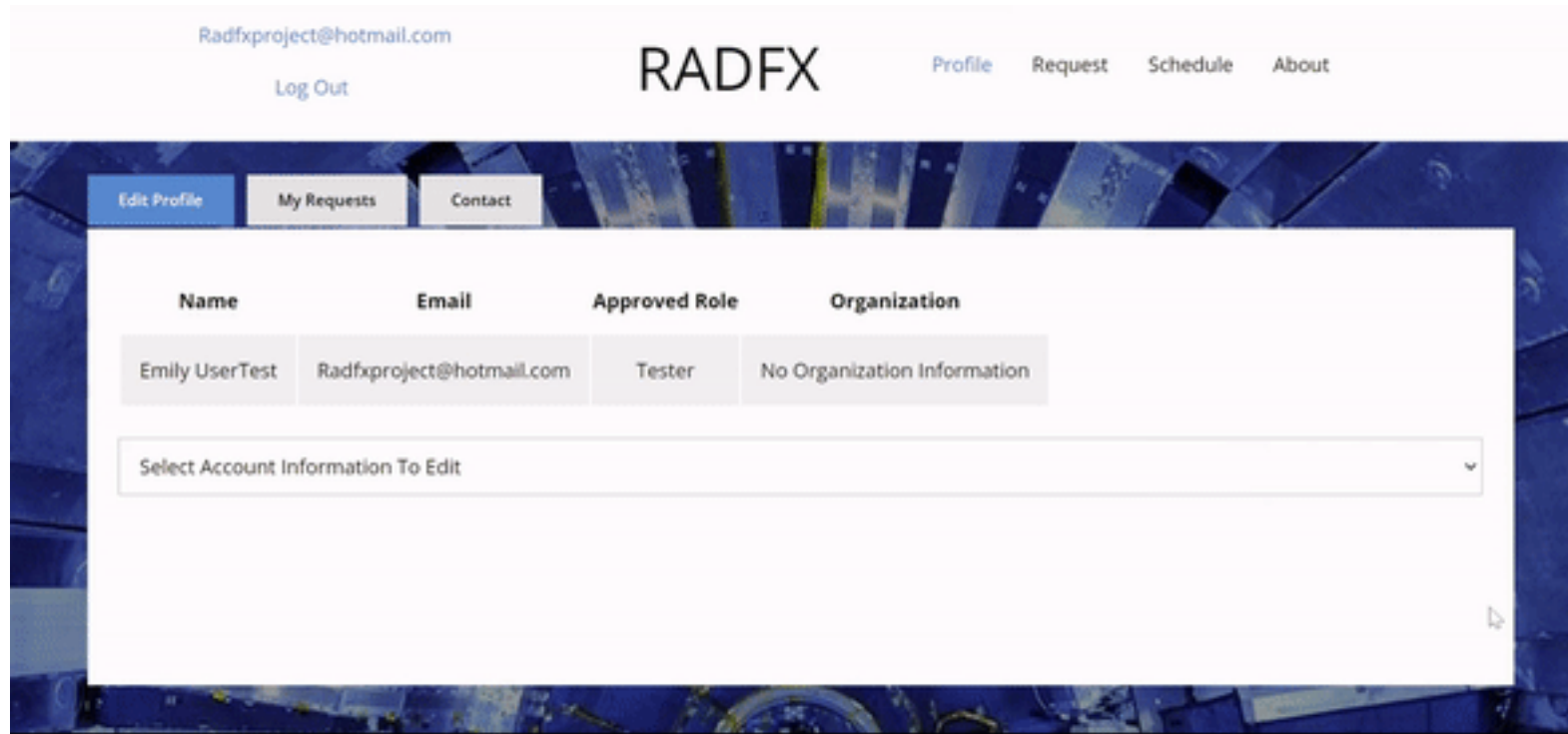
❑ Easily check pending requests

❑ Allows users to view and edit previously submitted requests

Tester View: Viewing Facilities Published Schedules

Intuitive Calendar
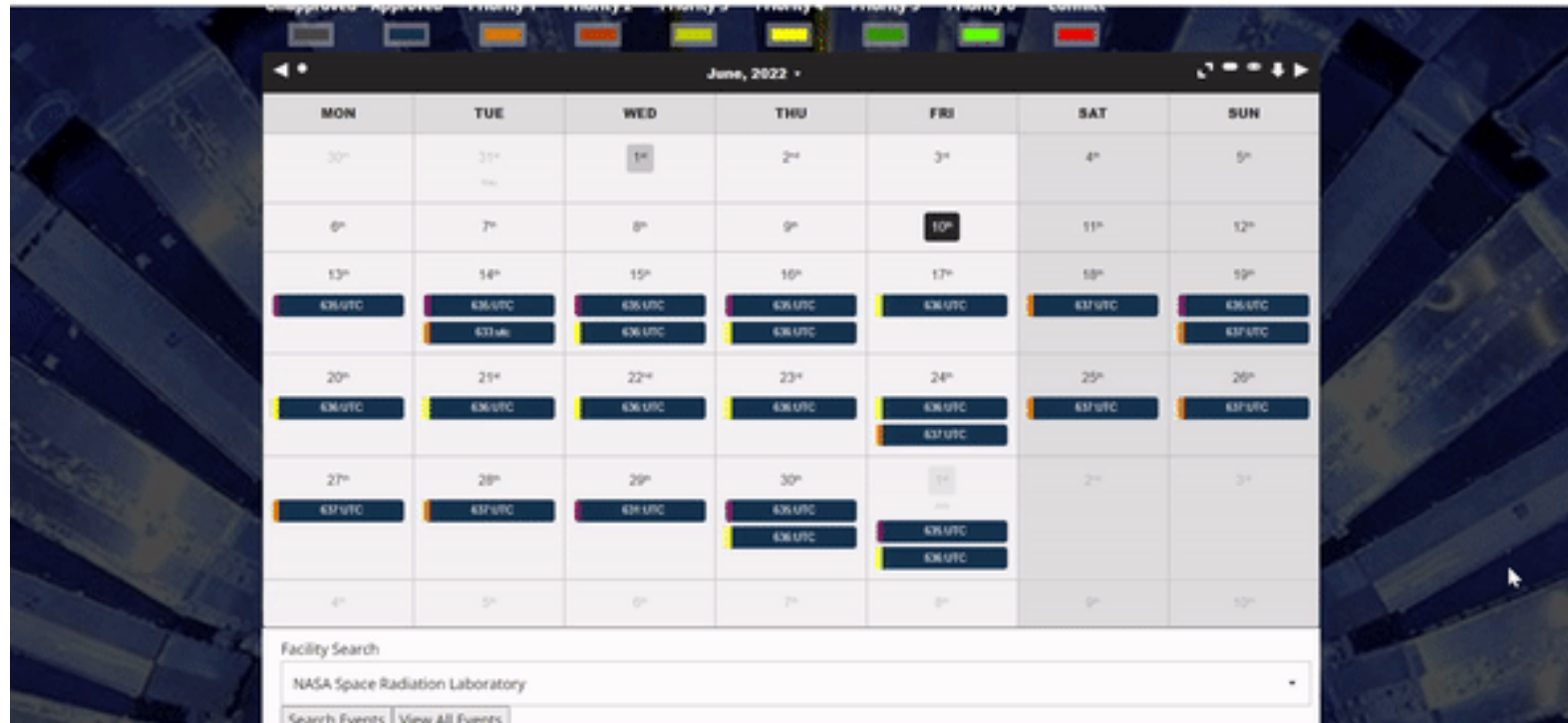
❑ Effortlessly see where your beam time has been scheduled

❑ Simplifies planning your request dates

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Facility Manager: How does this simplify scheduling for facilities?

RADFX Calendar tool
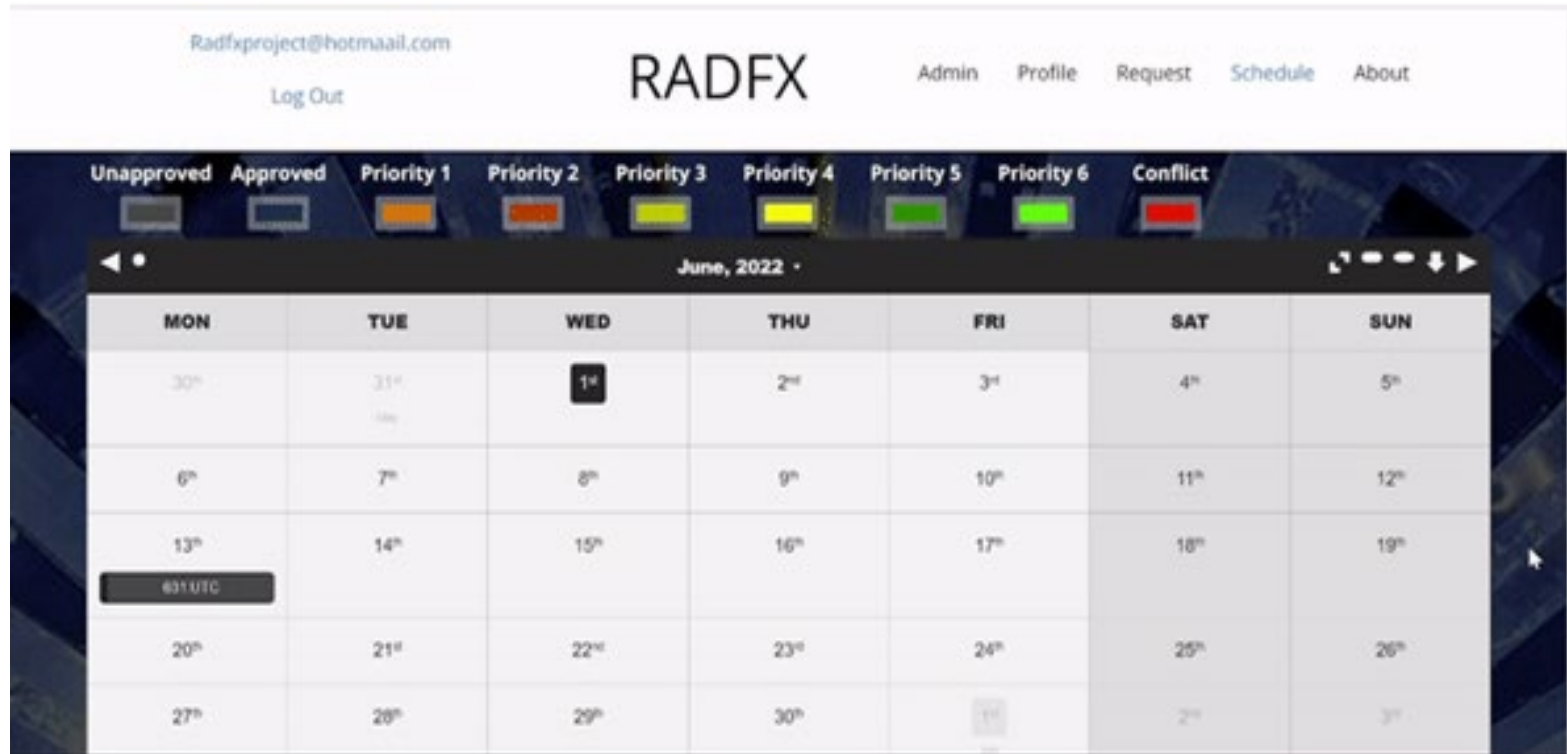
❑ No more outdated scheduling

❑ Clean visuals and responsive UI

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Facility Manger: Flexible Drag Drop Calendar
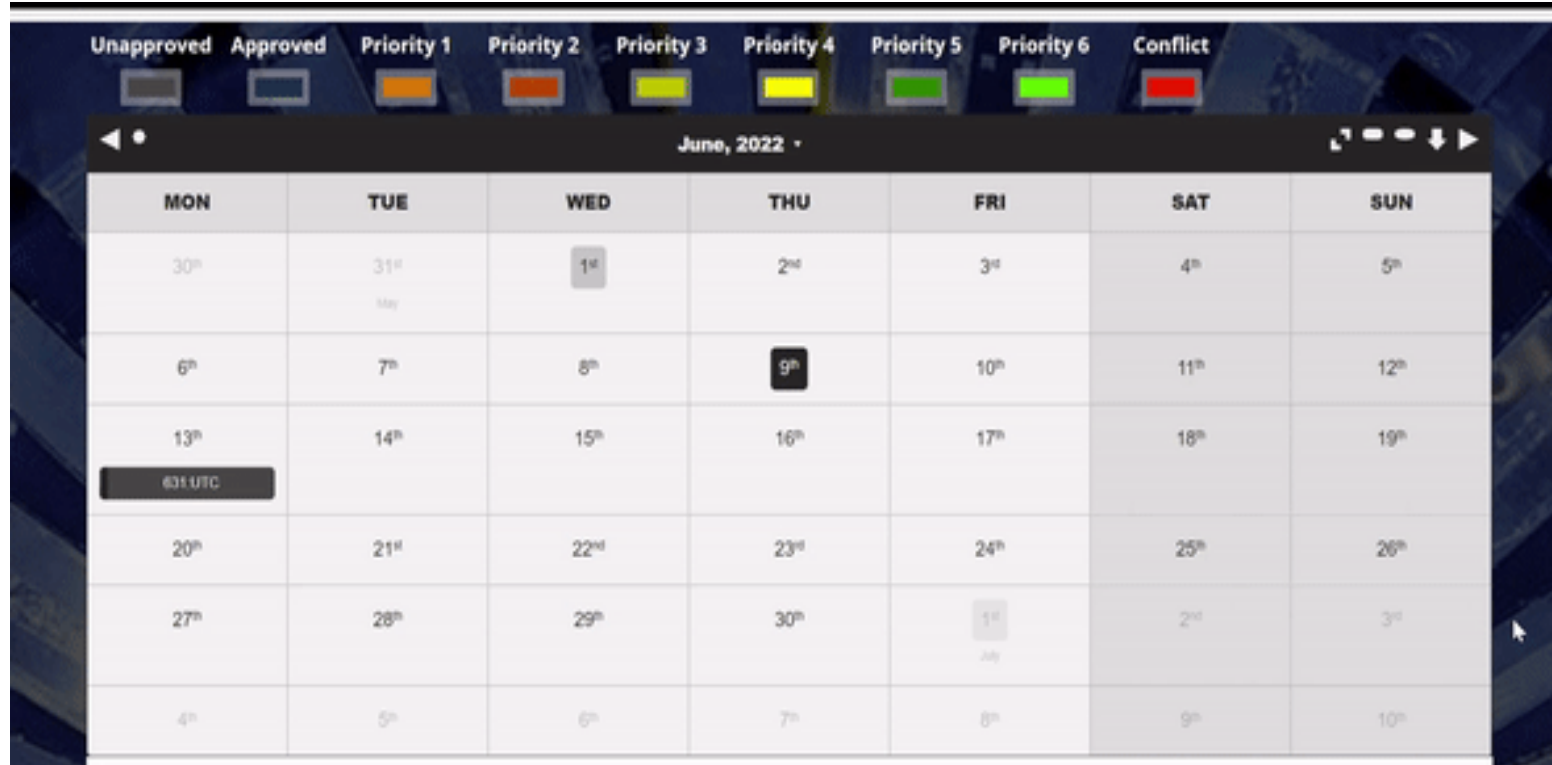
❑ Facilities can easily adjust tester's requests

❑ The drag and drop feature alleviates stress on facility managers and MDA employees

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Facility Manger: How does this fix scheduling conflicts?

Conflicts are highlighted in Red

❑ Color-coding is used to increase readability for facility managers

Facility Manager: Request form Approval via Calendar

Immediate Communication

1) Right click a potential test request

2) Verify information

3) Approve or deny

4) Notifies testers immediately on test approval

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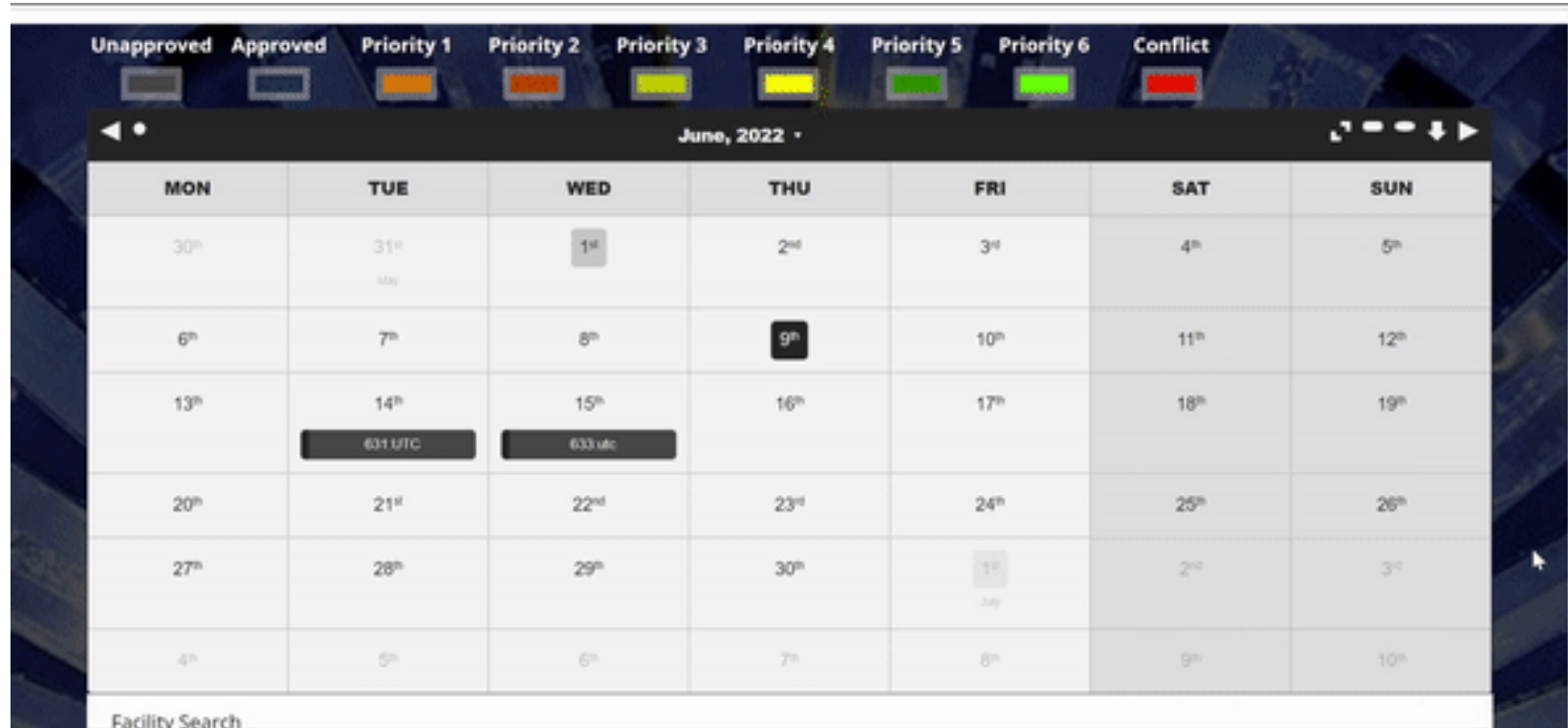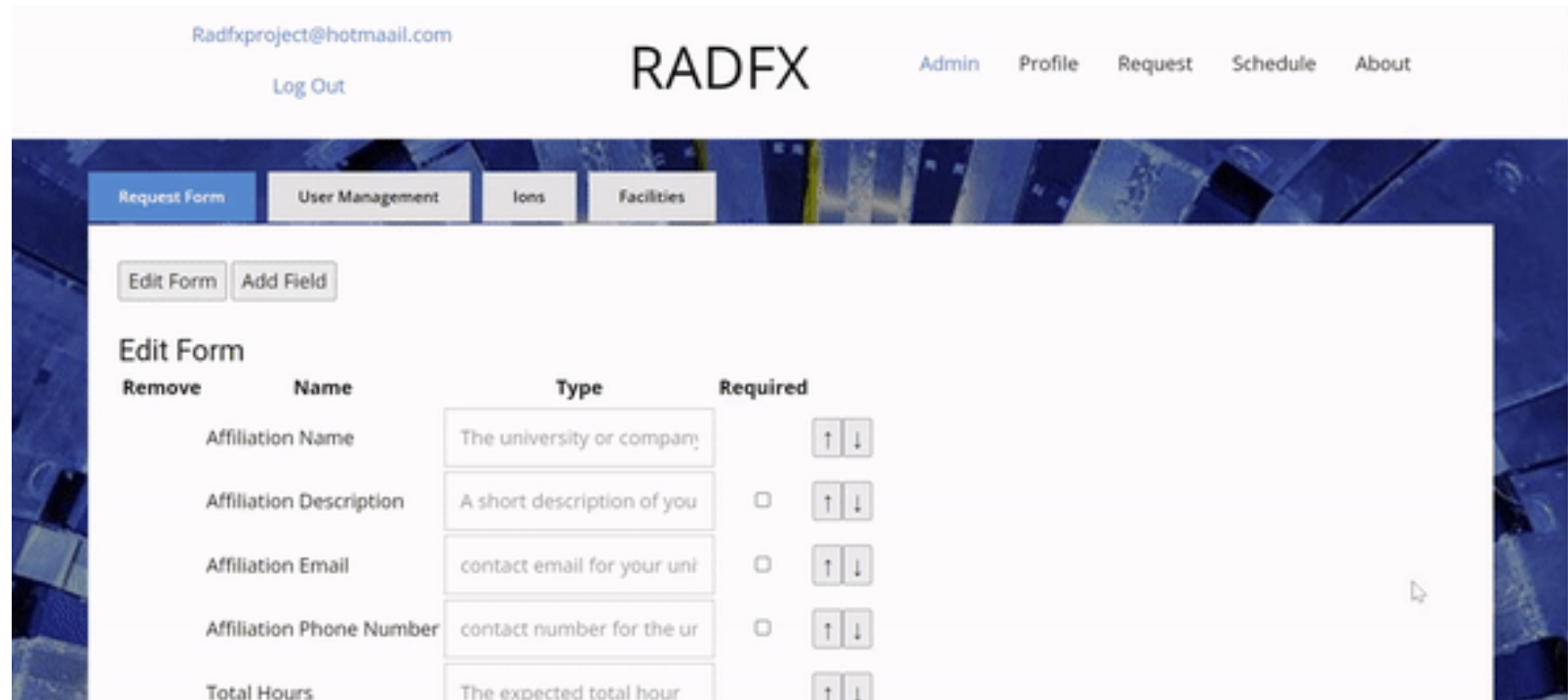
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Agency/Admin View: Flexible Request Form

Both Facilities and Admins can adjust any request form to accomidate facility changes and availabilities

❑ Add or remove fields

❑ Adjust order with ease

❑ Code designed for ease of use

❑ All done through the website

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Admin view: Customize Ion Availability

❑ Select ions by facility

❑ Add remove, and edit ions

❑ Provide testers with the information they need

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Agency/Admin View: Adaptable Facility Management

Aids in facility management as radiation testing expands

❑ Add additional descriptive fields

❑ Add and remove facilities as the tool grows

❑ Edit facility information

❑ Assign colors on the calendar

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We would love to hear what you think!

We need your help!
For those of you interested in beta testing, request an account here:

http://Radfx-a.research.utc.edu
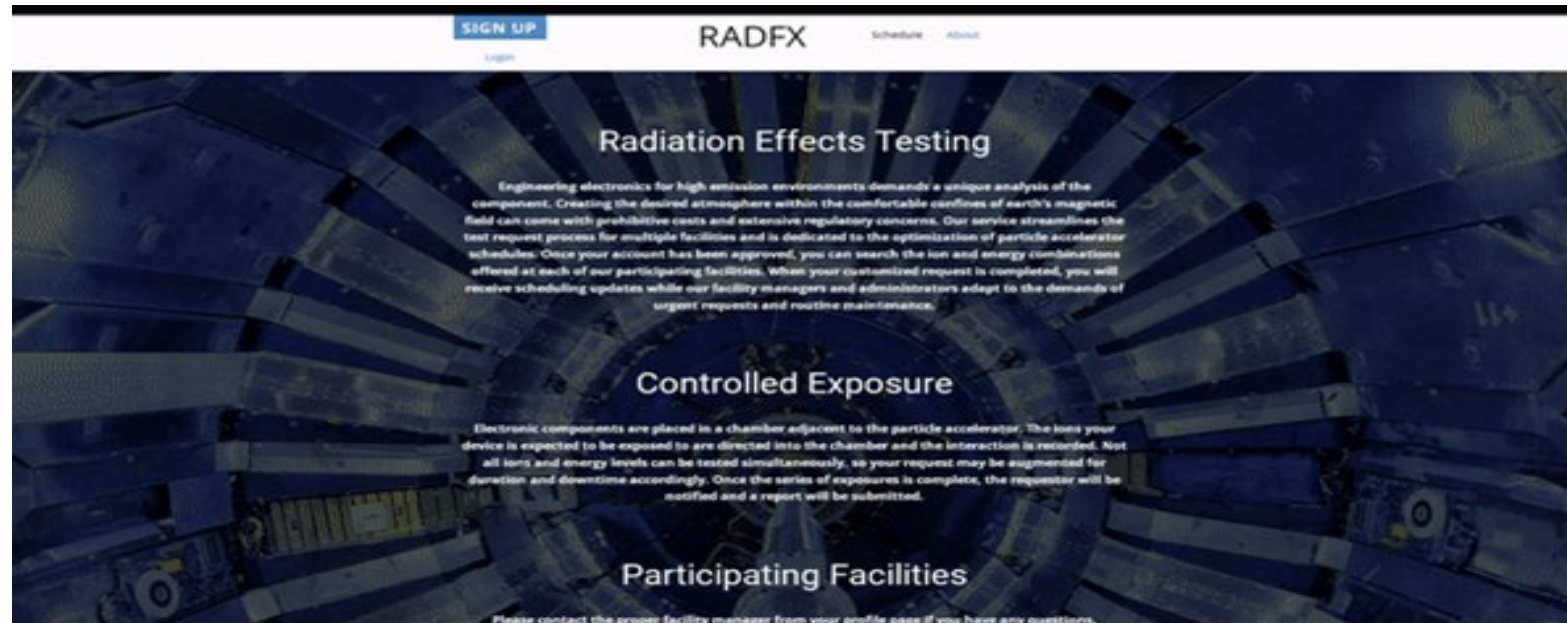
❑ Thank you so much to the NASA Electronic Parts and Packaging (NEPP) Program

❑ Thank you to Dr. Loveless and Michael Mckenna

Questions?

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