**IEEE RFID Conference**

**Paper/ Poster Registration Script**

Functional Specifications

Last updated on:

**Overview**

Create a script to verify that each accepted paper/poster has at least one *fully paid registration*. There are four different rates for registrations: member, L/S/R reduced, non-member, and all access. A fully paid registration is at member, non-member rate or all access rate.

**Audience**

Organizing committee members can use the output of the script to determine which papers and posters do not have valid registration.

**Inputs to the Script**

The script takes the data in four Excel files as input.

*IEEE RFID Registration List* contains the registration information for all conference attendees. The following columns in the Excel file contain pertinent information:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| RegDate | First Name | Last Name | Description1 | Total1 |

The RegDate field stores the date when the attendee registered. This field has the format month/day/year (e.g. 2/15/2015).

The Description 1 field has one of the following values:

1. IEEE RFID 2015 + Exhibit Hall Pass Member Pricing
2. IEEE RFID 2015 + Exhibit Hall Pass Non-Member
3. IEEE + Exhibit Pass L/S/R Member
4. All-Access Pass

The Total1 field contains the total registration fee, which could be for multiple papers and or posters, paid by the attendee on that registration date.

*IEEE RFID Papers* contains list of *accepted* papers. The Excel file has the following pertinent columns:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Author 1 | Author 2 | Author 3 | … |

*IEEE RFID Posters* contains list of *accepted* posters. The Excel file has the following pertinent columns:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Author 1 | Author 2 | Author 3 | … |

There can be any number of authors for each paper/poster.

*IEEE RFID Registration rates* contains the rates for early/advanced/regular and on-site registration. The Excel file has the following columns:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Type | End date | Member | L/S/R | Non-member | All-access |

The Type field is one of the following:

1. Early
2. Advanced
3. Regular
4. On-site

**Outputs of the Script**

* List of papers and poster with at least one fully paid registration.
* List of papers and posters without a valid registration.

**Rules**

* One fully paid registration covers two papers.
* One fully paid registration covers one paper and one poster.
* One fully paid registration covers two posters.
* Attendees may register with “All Access” rates instead of member, nonmember, or L/S/R. Each “All Access” registration counts as *one* *fully paid registration* for the RFID conference.

**Examples**

Case 1. Authors A- G have 2 accepted papers and 1 poster. A and B have a fully paid registration. The script lists 1 to 3 as those with valid registrations.

Paper 1 A B C

Paper 2 A D E

Poster 3 A F G

Case 2. Authors A- E have 2 accepted papers and 1 poster. A has a fully paid registration and E has a L/S/R registration. The script lists 1 as those with valid registrations.

Paper 1 A B C

Paper 2 E C D

Poster 3 B E D

**Assumptions**

* The titles of the pertinent columns in the Excel files do not change; however, the column order is variable.
* The number of authors for each paper/poster is variable.
* The format for dates is: month/day/year hour:min.
* Each registration by the same author is recorded as a separate entry along with the date in the Excel file.
* An attendee/author registers only once.

**Scripts Tasks**

The script will perform the following tasks:

* + Identify the number of fully paid registrations for *each* author of a paper or poster. To do this, check the registration fee paid, date when the author registered, and the rate.
  + Determine an assignment of fully paid registrations to papers such that the number of papers covered is maximized.