mmW @ Joint International Conference on Infrared and Millimetre Waves and International Conference on Terahertz Electronics (IRMMW-THz), Cardiff

Evaluation report

1 Introduction

Millimetre-Waves: The vision for the future is a partnership between the Department of Physics at the University of St Andrews and FifeX. It is funded through the EPSRC's Partnerships for Public Engagement (PPE) awards scheme.

IRMMW-THz technical and commercial exhibition ran from Monday 3 to Wednesday 5 September 2007. The exhibition ran alongside a full conference programme.

The mmW stand had a substantial space in the exhibition and members of the project team were presenting papers as part of the conference programme. This was the first time the stand had been exhibited at an academic conference. The exhibition was busiest at lunchtimes and during evening poster sessions

2 Evaluation methods

An evaluator was present on Wednesday 5 September. Nineteen interviews involving 23 visitors were conducted. Five visitors also left feedback on questionnaires.

3 The stand

3.1 Stand setup

The stand comprised several elements that aimed to explain mmW technologies in a professional, accessible and interactive way. These elements were:

- 8 display boards with text and images about science and technology related to mmW.
- 2 screens showing videos about mmW including mmW images.
- A screen showing information about AVTIS.
- The AVTIS scanner.
- An infra-red camera and display screen (not working)
- The transmission wheel
- Real-time Radar Room scanner

A number of observations were made about the stand. They are summarised here:

- The noise created by the real-time room radar attracted visitors, who wanted to know what it was and how it was built.
- Visitors were prepared to read every word on the stand.

- The display is a great way of facilitating discussions amongst scientists from different disciplines.
- The impact of the stand is greatly increased when the scientists are there to facilitate.

3.2 Questionnaire Responses

All five visitors who completed questionnaires felt that the stand was very interesting and very educational. Two respondents also rated it as very interactive. Overall the responses were very positive, with all respondents saying they would continue to discuss the issues raised.

None of the respondents identified a least-favourite part of the stand. It has not changed the way they feel about science/engineering – which is not surprising given the backgrounds of the visitors.

In terms of learning – three respondents said they had learnt about an area of research/technology with which they were not familiar. The other two already knew the subject area.

3.3 Interviews

3.3.1 General opinions of the stand

Many interviewees described the stand as 'extremely professional' or 'unexpectedly professional'. Several expressed surprise that it had been created by an academic group and not a University marketing team.

Comments about the stand included:

> *"This is the best stand here."* (three comments)
>
> *"It is brilliant to see so many applications presented for this technology."*
>
> *"The amount of work that has gone into this must be huge. They have achieved something remarkable - though".*
>
> *"This sets the standard for all outreach activities."*
>
> *"This works brilliantly to share knowledge outside the specialism."*
>
> *"We [in the US] don't have anything similar. We need it – it is outstanding."*
>
> *"The link between science and ethical considerations are brilliantly made and relevant to everyone."*
>
> *"This successfully achieves the quality of a science museum – on a fraction of the budget I guess."*
>
> *"The consistency of imagery and diagrams makes the stand look very attractive and professional."*

"It would not look like a foreign language to the public. This accessibility means even young people can read this and find out about cutting-edge science."

"It is unique to have such a professional set-up that is not selling a product."

"I expect most people underestimate the resources that go into something like this. It looks wonderful."

3.3.2 Suggestions

Several visitors suggested ways to extend use of the stand. Their suggestions included:

"This stand could go to shopping malls and airports, but it needs you guys [the project team] to make it work."

"You should use to attract research sponsors. They'll be impressed by your professionalism."

"Some of the interfaces [e.g. the room radar] need simplifying for the public."

"You need a different evaluation questionnaire for this academic audience."

"It would need translation for overseas public audiences - but not for overseas academics."

"You need a press release and pictures in science newsletters (e.g. Physics world) to tell the science community what is happening."

"This should be used at sixth-form careers fairs to attract young people into science. Anyone would want to go to Monserrat or become involved in building a $60,000 radar."

"Activities that create noise will attract people from across a busy room. Perhaps you can add something that creates noise."

"Do you have handout? Perhaps you could create one for specialists and one for non-specialists."

"Elements of this are perfect for schools visits. You could also go to Science Centres and do activities there."

"It is important that this does not become a 'second job' for the team. They need to carry on their research- it is the foundation of what they do and without it this outreach work would lack credibility."

"Please publicise how you have done this and the benefits. We need this information to persuade our colleagues to do something similar."

"Imagine how impressed potential industrial sponsors would be!"

3.3.3 Questions

Several visitors expressed surprise that the project team had been able to afford (in terms of both times and money) to produce such a professional stand.

“What has the exhibit cost?”

“How are you going to publicise this to other scientists?”

“What are the impacts on your research of doing outreach?”

“How long has it taken to create this?

“Booking schools visit and activities is very time consuming? How will you mange this.”

4 Conclusions and recommendations

The stand was an outstanding success. It was very well received by a specialist audience, some of whom said they could see the benefits of having such a professional display, which would attract potential collaborators and sponsors.

The following recommendations are made based on the learning from Cardiff.

1. There is a need to publicise the project amongst the scientific community. Press releases and newsletter articles would help achieve this.
2. A handout for interested visitors would be beneficial in making and maintaining contacts, particularly at times when the stand is unmanned.
3. A different feedback questionnaire should be developed for specialist audiences.