EMG ANNUAL REPORT FOR 2019

1. Board membership
Stuart Irvine (Chairman), OpTIC Centre, Swansea University
Peter Flewitt (Vice-Chairman), University of Bristol
Ian Warrington (Group coordinator), IOM3
Ainara Aguadero, Imperial College London
Peter Barnard (Newsletter Editor & Board Secretary), Babcock Doosan
Mike Gorley (web Master), CCFE
Adeel Shaikh (STEM lead), AMEC Foster Wheeler
Keith Barnes, Packaging Society
Keith Harrison, Consultant
John Oakey, Cranfield University
Scott Lockyer, Uniper Technologies Ltd.
Cem Selcuk, TWI
Lien Ngo, Innovate UK
Tony Fry, NPL
Martin Lamb, ONR
Emma Kendrick, University of Birmingham
Martin Marples, GE Power – Gas Power Systems
Tatiana Correia, KTN
Fiona Robinson, Tata Steel

Alternate members
Roger Morrell, NPL
Dr Craig Degnan, Uniper

Corresponding
Faye Smith, UKTI
Melanie Boyce, IOM3
Viki Taylor, IOM3
Rose Worrell, Taylor & Francis
Paul Mummery, Manchester University
Allan Walton, University of Birmingham
Chris Bagley, Energy KTN
David Hodgson, UKTI Energy
Ben Walsh, Innovate UK

I am grateful to the EMG Board for being very active during the year both attending Board meetings and working in support of the EMG mission outside of meetings. We had three resignations from the Board: Derek Allen (Innovate UK), Robert Quarshie (KTN) and Gordon McColvin (GE Power) who are all thanked for their support of the EMG over the past few years. We also welcomed new Board members: Tatiana Correia (KTN) and Fiona Robinson (Tata Steel). We have broad representation across energy materials technologies with 5 members from the university sector, 9 from the
industrial sector, 2 public sector and 3 consultants making a total EMG Board compliment of 19.

2. Board meetings
The EMG have held three board meetings in 2019 with 2 Board meetings at 297ER and one online meeting.

The dates, location and attendance of board meetings for the year were as follows:
6th February, 297ER (12); 24th July (9), 27th November, 297ER (14).

3. Activities during 2019
The EMG has continued with its strategic role to raise the profile of energy materials in facing the challenges of power generation and climate change. We started the year with a members survey to review EMG activities that can best serve our members. We were particularly interested in a review of the Energy Materials Annual Lecture and to review the format. Favourites with the members were to hold it as part of a one day conference and to hold webinars. The EMG Newsletter has continued to be an essential resource to inform our membership of topical issues and upcoming events. During the year we had a total of 7 issues during the year. The EMG have supported the IOM3 initiative in promoting STEM subjects and a comprehensive package of information is being collected by our STEM lead, Adeel Shaikh for outreach resources. In particular we have prepared educational slides on energy materials topics, including: Nuclear, Solar, Hydrogen and Fossil fuel power. The EMG Microsite has continued to be a valuable resource with news of events, energy materials news and links to all the current and back issues of the EMG Newsletter.

3.1. Technical programme
- PVSAT15 – Conference on photovoltaic (PV) materials and systems, 10-12 April, University of Warwick (co-sponsored by EMG)
- Parsons Conference - design, materials performance, advanced and novel manufacturing methods, and operation of both steam and gas turbine power plant, together with issues related to increased operational and fuel flexibility and potential new power generation cycles. 16-18 September 2019, University of Cranfield

3.2. Web-site development
Mike Gorley has developed the role of Web Master, improving content and navigation for EMG members. The analytics reports show that most of the micro-site traffic is generated by the EMG Newsletter.

3.3. Engagement with technical community and/or local societies
EMG has continued to seek opportunities for joint events and providing speakers for local societies. The EMG supported organisation of the EMMS Conference on Energy Materials (2019). Engagement with other technical communities has been through the Technical Communities Board (TCB) and through attendance of the new TCB Forum on the 12th November. This provides new opportunities for collaboration on energy materials issues across a range of technical community board from the Sustainable Development Group (SDG) through to the Nano-
materials Group (NMG). We look forward to future planning on events with these and other technical community Boards.

3.4. Contributions to IOM3 house journals
The main mechanism for engagement with house journals has been linking published papers across the range of house journals to the Energy Materials Journal. This is a virtual journal that provides lists of energy materials relevant papers and links to the article in the originating journal. Unfortunately, there were no issues for 2019 and a review is being undertaken on future provision across the house journals.

3.5. Other

4. Strategy and Objectives for 2020 and Beyond

4.1. Opportunities and constraints
- Achieve greater visibility and benefit to IOM3 members through web site, social media, Newsletters and members surveys.
- Develop strategic goal of raising the profile of energy materials to government departments, R&D funding and industry.
- Opportunity for closer alliance with other technical groups and divisions through a decarbonisation conference series and through the TCB.
- Develop opportunities for working with Taylor & Francis on energy materials content in house journals and Conference issues.

4.2. Specific targets for 2020
- Develop web site and e-newsletter as effective routes for EMG member communication. Review outreach initiatives.
- Review EMG annual lecture and alternative options for delivery.
- Support an international event on energy materials theme.
- Seek 2 new joint conference sponsorship opportunities.
- Develop international links and UK strategic engagement.
- Develop energy materials STEM resources and promote STEM ambassadors’ scheme.

4.3. Outline plans for the 4 years beyond 2020
- Review membership balance (diversity and subject areas) of the EMG board and integration with new TCB structure.
- Review contribution to IOM3 outreach initiatives such as STEM.
- Organise an annual energy materials conference.
- Support international conferences on energy materials.
- Strategic engagement plan

5. Other matters

No other matters.

Appendix: Technical Programme as of December 2017

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<tr>
<th>Date (YY/YY/MM)</th>
<th>Status (Held/Progressing)</th>
<th>Title</th>
<th>Location</th>
<th>Organising Division(s)/Committee(s)</th>
<th>Financial Underwriter (IOM3/</th>
<th>100% Target No’s</th>
<th>Actual No’s</th>
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<td>Date</td>
<td>Type</td>
<td>Event</td>
<td>Collaborators</td>
<td>Local/Other</td>
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<tr>
<td>10-12/04/2019</td>
<td>Held</td>
<td>PVSAT-15</td>
<td>Warwick University</td>
<td>ISES, co-sponsored by EMG</td>
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