



The Institution of Agricultural Engineers

South East Midlands Branch

Notice of Branch AGM to be held
19.00 Monday 04 February 2019
Maulden Church Hall, Church Road MK45 2AU

AGENDA

1. Apologies for absence
2. Minutes of the AGM held on 05 February 2018
3. Matters arising
4. Chairman's report
5. Treasurer's report
6. Election of Officers for 2019/20
7. Message from the Institution President
8. AOB
9. Date of next meeting. 03 February 2020

Student Research Presentations Competition (before AGM)

Guillaume Blanchy – Rothamsted Research

Magdalena Dolowy – Harper Adams University

Prezmet Dolowy – Harper Adams University

Dimitris Mallis – Nottingham University

Joe Martlew – Cranfield University

Minutes of Annual General Meeting

Monday 05 February 2018

at 7.00 pm in Maulden Church Hall

1. Apologies

J Hunter, B Finney, R Jones. 23 present.

2. Minutes of the AGM held on 06 February 2017

The minutes of the AGM were accepted as a true record. (proposer: R Godwin, seconder: P Miller)

3. Matters arising

None

4. Chairman's Report 2017/18

The year kicked off with 18 attending our AGM on 6th February. As usual, the evening started on a competitive edge with student presentations, this year all four being from Cranfield University. **Kelechi Anyaoha** described his work on "Fresh fruit bunch solid wastes: processing methods, conversion and utilisation nexus in Nigeria". The research looked at better ways of utilising the solid wastes from the fresh fruit bunch of oil palm, breaking it down into fuel and soil amendments or a combination of the two. **Angela Navarro Calderon's** research was on the subject of "Early detection of latent fungal infections in soft fruits" and tackled the problem of identifying latent infections with biomarkers prior to storage, where losses in plums and cherries can be as high as 50%. **Agnese Mancini** was looking at the extent to which "Soil micro-topography heterogeneity determines soil loss" and discovered that it was a significant factor which should be taken into account when measuring soil loss in the field. Differences in micro-topography between the experimental blocks masked the effect of different cover crops on soil erosion. **Tom Storr** described his work on "The potential of companion crops with maize to improve soil health and yield" in a rotation of wheat, maize and lettuce. Interim results suggested that crop combinations were able to elevate yields and improve soil structure but a reliable means of companion crop establishment was vital.

Judging of the presentations took place during the AGM in its usual format, which included a message from the Institution's President, Robert Merrell conveyed by Alastair Taylor. The key points from his message included the fact that there had been a review and update of the Memorandum and Articles of Association as well as associated Regulations and membership procedures. The IAgrE website had been updated and now forms an extremely professional overview of the Institution, its activities and services to members. The annual conference had been very successful and as usual, the Awards day (this year at JCB) had been a most enjoyable event. The Institution had also provided a significant contribution to the Royal Academy of Engineering.

Pre-professional membership had fallen during the year but Associate Members had increased substantially as had Engineering registrations. The key challenges were retaining students and pre-professionals, moving existing members into higher grades and recruiting new members, the latter not necessarily from traditional sectors. Members were urged to promote the Institution at any opportunity.

The outcome of the student presentation judging was two equal winners, **Agnese Mancini** and **Tom Storr** who were congratulated by all present and each presented with a cheque.

Our technical programme for the remainder of the year followed the usual pattern with a further two technical meetings before a summer "recess" and continuation in October.

Ron Corstanje from Cranfield University spoke at our March meeting and introduced the newly established Agri-EPI Centre (Agricultural Engineering Precision Innovation). The infrastructure of the Centre which includes new engineering and sensing technologies was government funded and commercial projects will benefit from a combination of self-funding and support from Innovate UK at varying levels depending on the size of the company.

In April, **Russell McKenzie**, a farmer and Nuffield Scholar from Cambridgeshire gave us the benefit of his experiences with “No-till”, concluding that no-till could provide greater consistency in crop performance, regardless of weather conditions, providing soil organic matter levels were enhanced, a good rotation was employed and the right drill chosen for the conditions.

Our winter program relocated to a new venue for some meetings - an upstairs meeting room at The George Inn, Maulden. **Richard Jones** opened our programme in October and without visual aids held his audience entertained with a history of his company, Astwell Augers Ltd. Richard eloquently demonstrated the need to be “light on one’s feet” and to have a certain element of luck and foresight to ensure a company’s survival. Knowing what and when to buy into were equally important to ensuring one had a well-designed, built and durable product.

Our November meeting was on Tea Manufacture. **Dave Sharp**, who had spent 38 years with Unilever, shared his wealth of experience of tea processing, from field to teabag. Touching on the suitability of the two tea varieties to different climates, he went on to describe how these formed the basis of all teas, from “white” to “black”; it was just a matter of which leaves were picked and their subsequent processing.

A change in our advertised programme meant that our December meeting was addressed by **Peter Delaney** of AGCO, described the main features of their new Massey Ferguson IDEAL combine. Included in the novel aspects were a single helix rotor designed to save up to 50% on power while preserving straw quality. Also included are a range of acoustic mass detection sensors which sense flow of material through the combine as well as grain losses. Standard running gear whether on tyres or tracks maintain a transport width of less than 3.3 m.

Our final meeting of the year was held at Cranfield University and was led by **Prof Stewart Williams**, who heads up a team there working on Wire +Arc Additive Manufacturing (WAAM). This 3-D type construction is nothing new, being patented in 1926, but the techniques and control technology now in use make it a process with enormous potential, typically cutting manufacturing costs in half, lead times from months to days and waste material to a fraction compared with traditional techniques. Central to the manufacturing process is clever software that interacts with robot arms that build components in different thickness layers depending on the particular product.



Examples of products that can be manufactured using Wire +Arc Additive welding

This year’s winner of the Shepperson Memorial Prize was **David Clarke** for his thesis entitled “Assessing the impacts of drought on UK wheat production”. His work using historical data and employing a wide range of indices, together with a crop growth model allowed him to show significant correlations between weather patterns and wheat yields. Such predictions have implications in terms of supply in a volatile market.

Following a series of discussions and interaction with the IAgrE secretariat, it was decided that the Shepperson Memorial Trophy would become incorporated in the national “[IAgrE CNH Industrial Award](#)”. This elevates and maintains the Shepperson award in perpetuity as well as offering the prize winners (post- and under-graduates) greater status and a prize uplift.



Attendance at our Branch technical meetings averaged 16, much on a par with previous years. The Branch committee met on two occasions, principally to plan the next series of technical meetings. In the hope of reaching out to a wider member audience, the next programme will include a technical meeting during the day rather than in the evening and it is hoped that this can also be recorded and made available subsequently online.

My thanks as always to all those who have supported the Branch over the past 12 months, to our speakers who have provided us with excellent and diverse presentations and to our staunch committee who have a never-ending supply of ideas and contacts to ensure our technical programme continues.

Tim Chamen
February 2018

The meeting accepted the report. (proposer: R Godwin, seconder: P Redman)

5. Treasurers Report.

Opening Balance as at 01/01/2017		
Balance:	Overall	£233.24
Comprising:	HSBC Bank	£560.87
	Central Deposit Account	-£327.63
Central Grant from IAgrE		£290.06
<u>Available Balance for the Year</u>		<u>£523.30</u>
Expenditure for Year		£482.06
Loss/Surplus		£41.24
<u>End of Year Balance</u>		<u>£274.48</u>
Comprising:	Bank Balance at 31/12/2017	£388.87
	Central Deposit Account	-£114.39
The foregoing is a true statement of the transactions recorded in the institutions central records for the year ending 31 December 2017		
		
Alastair J Taylor Secretary and CEO 08-Feb-18		

The accounts were accepted. (proposer:C Butler-Ellis, seconder:D Bartlett)



6. Election of Officers for 2017/2018

Chairman: W C T Chamen

Vice Chairman: J Hunter

Secretary/Treasurer: J V Stafford

Ordinary Members: R Jones, A Plom, M Redman, J Rickson, R Simmons, M Stephenson, D Tinker

The meeting expressed gratitude for all the work that our chairman, Tim Chamen, puts in running the branch and also to our secretary, John Stafford.

7. Message from Institution President– presented by J Rickson.

8. Any Other Business

None

9. Date of next Annual General Meeting

04 February 2019

John Stafford

Branch Secretary & Treasurer

08 February 2018