# YORKSHIRE A CENTENARY OF THE IMechE'S OLDEST REGION



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Improving the world through engineering

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See the text for the area covered by The Yorkshire Branch 1921-1964 and The Yorkshire Region from 1998.

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Written by Ashley W Crossland, with contributions from Terry Spall, President; Luke Farmer, Regional Chairman; Mark Hesketh, Past Regional Chairman with Andrew Bromley, Chairman of the Northern Area and Grahame Platt of the Northern Area; Alan Brattan, Past Chairman of the Region and of the Eastern Area; Jonathan Fewings, Chairman of the South Yorkshire Area; Ken Ball, Past Chairman of the Western Area; J Brian Firth, Chairman of the Senior Members; and Ian Crowston, Regional Education Officer.

#### INTRODUCTION

I was very proud to accept the nomination to be the Chairman of the IMechE Yorkshire Region Committee and then I was even more pleased to find that I would be its Chairman as it celebrates its centenary. It is therefore a privilege for me to write this introduction.

You will have deduced from the title of this publication that Yorkshire has the honour to be the oldest Region in the IMechE and that 2021 is its Centenary Year. This publication has been commissioned to document 100 years of its Yorkshire IMechE regional history. Hopefully there is something in here that will be found interesting and informative and which has been captured before it was lost forever.

The Yorkshire Regional Committee, in the hands of my predecessor, Alan Brattan, unanimously felt that Ashley Crossland would be a safe pair of hands to write the history of the Region. He is definitely not the oldest person in the Region, but he is himself a past Yorkshire Region Chairman and has a wealth of information on which to draw. I, and the rest of the Committee, feel that he has done a splendid job writing this book for which we thank him. In addition, may I also thank those writing about their areas: Mark Hesketh, Past Regional Chairman with Andrew Bromley, Chairman of the Northern Area and Grahame Platt of the Northern Area; Alan Brattan, Past Chairman of the Region and of the Eastern Area; Jonathan Fewings, Chairman of the South Yorkshire Area; Ken Ball, Past Chairman of the Western Area; J Brian Firth, Chairman of the Senior Members Committee; and Ian Crowston, the Regional Education Officer. Ashley has some further acknowledgements at the end of the book and thanks to all who have contributed.

The real purpose is to use the book to share our pride in the first centenary of the IMechE Region. I therefore trust that you will enjoy reading about the Yorkshire Region.



**LUKE FARMER** Chairman, 2019 - 2021



## FOREWORD BY THE PRESIDENT TERRY SPALL

#### 135th President of the Institution of Mechanical Engineers

I'm delighted to be President during the year that our Yorkshire Region, the oldest branch of the Institution, celebrates its centenary which is quite an achievement. The past 100 years have seen many changes in the world of engineering and Yorkshire has been at the forefront of developments in innovation and technology.

The Yorkshire branch was founded in Leeds, with its inaugural meeting held on 14 February 1921. The branch has expanded over the years and now has 5766 members covering a wide range of industries. As the branch has grown, it has held an impressive range of events through the years including site visits, presentations and guest speakers. It is exciting to see the region has an active Young Members Group, who have been the catalyst for a new series of webinars launched by the Institution.

Yorkshire's engineering excellence is highlighted by the region winning more than its fair share of the Institution's prestigious Engineering Heritage Awards. One winner is the last remaining Bramah hydraulic press used to print banknotes, which is in the Kelham Island Museum in Sheffield.

As an Institution our mission is to raise the profile of mechanical engineering and to support the young engineers of the future. Many members of the region, both active and retired engineers, volunteer as STEM Ambassadors engaging with schools and colleges to inspire young people to find out more about science and technology and encourage them to consider engineering as a career.

Yorkshire has built on its proud engineering heritage to become home to many leading engineering companies and is also at the forefront of high-tech research. It's impressive to see that in the region there are six universities sending teams of engineering students to take part in our annual Formula Student racing car competition.

These young engineers are the future of engineering. As we celebrate the Yorkshire Region's centenary, this book is a valuable record of the many achievements of the region members and I am confident they will make an equally valuable contribution to engineering for many years to come.

TERRY SPALL BSc (Hons), MSc, CEng, FIMechE President

THE INSTITUTE OF MECHANICAL ENGINEER
LEEDS LOCAL BRANCH.
LEEDS FOR BOOK.

## THE START OF THE YORKSHIRE REGION OF THE IMECHE

Yorkshire holds the distinction of being the very first Branch to be created in the Institution of Mechanical Engineers. The Inaugural Meeting of the Branch was held in Leeds on 14 February 1921 meaning that 2021 is its centenary year. The original Branch Committee was elected from members residing in Bradford, Huddersfield, Hull and Leeds and they adopted the name of 'The Leeds Local Branch'. Following three name changes it became known as 'The Yorkshire Region'.

As there had not previously been any Branches in the Institution, it might be interesting to recount briefly how the Local Branches came into being:

The credit for conceiving Institution Branches might be given to the then President, Michael Longridge who was President 1917 and 1918. On 12 June 1918, he sent a memo to members of the Institution Council in which he suggested a few topics – one of those topics being the "Interests of Local Members". Institution records say that Michael Longridge was the Chief Engineer of the Boiler Insurance and Steam Power Company based in Manchester. Hence Michael Longridge would appreciate that it was difficult for many members across the country to attend Institution events in London if that was the main location in which they were to be held.

Michael Longridge then issued a further memo on 19 June 1919 in which he mentioned 'Local Branches of the Institution' and on 27 June 1919, the IMechE Council appointed a Committee to consider 'Branches', along with topics of 'Library', 'Research' and a 'Consultative Committee of the Presidents of the ICE (the Institution of Civil Engineers), IMechE and IEE (the Institution of Electrical Engineers)'. The Committee's first Meeting was held on 24 July 1919, and the President, then being Dr Edward Hopkinson MP, reported to Council on 25 July that the first Sub-committee meeting on Local Branches etc. had taken place. Regrettably, this would be the last Council Meeting at which Dr Hopkinson would preside due to ill health. Edward Hopkinson was the Member of Parliament for the Clayton Constituency of Manchester.

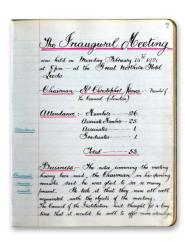
Further Committee Meetings were held culminating in a Special Council Meeting on 9 January 1920 where it was confirmed that local Branches could be formed where there was sufficient local demand.



Consequently, at a Meeting of the Council's 'Local Branches etc.' Committee on 11 June 1920, it was disclosed that correspondence relating to the possible establishment of Branches had been received from Leeds, Sheffield, Manchester, Birmingham and Dublin. The President was now Capt. H Riall Sankey who would serve as President 1920 and 1921 and who incidentally was the last person to serve as President for a two-year term. Sankey had been born in Southern Ireland and had worked in Manchester, but his work later was to take him far and wide.

At the council meeting on 17 December 1920, the petition to form a local branch in Leeds was granted and Mr FL Watson MC was authorised to make arrangements in conjunction with Mr Grover (having been the Hon. Local Corresponding Member for Leeds) for the first meeting of the Leeds members, and that the meeting should be chaired by Christopher W James, a member of the IMechE Council. When Mr Watson enquired as to what area should be covered in issuing the notices for the first meeting of the Leeds local branch, HQ advised him to use his own discretion. Mr Watson chose the entire county of Yorkshire!

The first Minute Book does survive in the IMechE Yorkshire Region archives and the first page reporting on that important Inaugural Meeting is shown right. The Inaugural Meeting takes up five more pages in the Minute Book. The handwriting is presumed to be that of the Hon Secretary, Guy L Murray.



The Inaugural Meeting of the Leeds Local Branch was held at the Great Northern Hotel in the centre of Leeds on 14 February 1921. Lt-Col Edwin Kitson Clark (Leeds) was elected Chairman, Major FL Watson MC (Leeds) (Vice-Chairman), Guy L Murray (Leeds) the Hon Secretary with a Committee consisting of Messrs. Edgar Alcock MBE (Leeds), Captain S Bramley Moore MC (Huddersfield), Professor GF Charnock (Bradford), Frederick Grover (Leeds), Samuel Moorhouse (Leeds), and GH Strong (Hull). The Branch's first Committee Meeting followed on after the Inaugural Meeting.

The Branch immediately took to having Committee Meetings prior to a General Meeting of a lecture or a visit. The second Committee Meeting was held in Leeds on 14 April 1921 and the first piece of business was to unanimously carry a motion "That in accordance with the request from Headquarters the name of this Branch in future be known as "The Yorkshire Branch." Immediately after the Committee Meeting, Lt-Col Kitson Clark delivered his Chairman's Address - "The beginning of Mechanical Engineering in Leeds". The approximate attendance was recorded as 84 members and 108 visitors. Apologies were recorded for the unavoidable absence of the IMechE President, Capt. H Riall Sankey, who it had been announced would attend this first Branch Meeting. Incidentally, this actually was to be a busy time for Edwin Kitson Clark, who had been appointed a Member of the IMechE Council (as Chairman of the Leeds Local Branch) on 18 February 1921, and who was also President of the Institution of Locomotive Engineers, 1921-1922.

The next Committee Meeting was held at the Philosophical Hall, Park Row, Leeds, with a General Meeting led by Mr Hedley J Thompson on Sir Richard Glazebrick's paper on "Limit Gauging". Approximately 60 members and visitors attended.

In the Branch's first year there were 6 lectures/visits, 9 Committee Meetings, and the most popular venue was the YMCA at Albion Place, Leeds. The Branch was by now firmly established.

In fairness, it must be said that the Leeds Local Branch had its Inaugural Meeting only one day before the North Western Branch, which was then followed two days later by the Midlands Branch on 17 February 1921. The next Branch after that was created 9 months later, then other Branches were created in 1923 and afterwards. So the Yorkshire Branch only just qualified as being the first Branch of the Institution.

See Appendix Note 1 for some Committee members from 1922 to 1927.

#### THE FIRST FIVE YEARS

The Yorkshire Branch lost no time in arranging various visits of engineering interest, e.g. to the Department of Textile Industries, University of Leeds on 27 June 1921. Indeed, the Branch Committee arranged quite a full programme in its early years, including:

On 31 October 1921, **Gaseous Firing for Industrial Purposes** was delivered in Leeds by FJ Bostock, with about 60 members and visitors attending, including the Secretary of the Institution, Magnus Mowat.

On 28 November 1921, **The World's Money System** was delivered by JG Graves before an audience of 60 members and visitors.

The interests of members in steel production were reflected at an early stage in the development of the Branch. On 19 December 1921, about 100 members visited Brown Firth Research Laboratories, Sheffield. On the same day, Dr WH Hatfield gave a paper on **Recent Developments with regards to alloy steel and its uses**. This lecture was repeated in Leeds on 26 February 1922, when it then attracted 50 members and 30 visitors.

On 27 March 1922, **British and American Locomotive Design and Practice** by PC Dewhurst attracted about 50 members and visitors.

On 30 March 1922, a joint meeting was held in Bradford with the Bradford Engineering Society for **The Heat Extraction Engine** by Professor GF Charnock before an audience of about 60 members and visitors.

On 2 May 1922, **An account of some experiments on the action of cutting tools** by Professor EG Coker and JC Chakko attracted 50 visitors and members.

On 22 May 1922, the topic was **Spinning Tops and Gyroscopic Motion** by LC Perkin.

It's not practical here to list every event, but hopefully a flavour of Branch activities can be given. In 1922, a capacity audience in Leeds attended to hear that year's IMechE's Thomas Hawksley Lecture **The mechanical problems of saving life at sea** given by Sir Westcott S Abell.

When the Branch first visited Hull on 16 May 1924, an official lunchtime reception at the Guildhall was given to 80 members and visitors by the Lord Mayor of Kingston-Upon-Hull (EE Keighley) and in the afternoon they enjoyed a tour of the King George Dock. The day concluded with the presentation of two papers read at the Municipal Technical College. The Branch was given official receptions by many other towns. In 1926, there

must have been concern about the state of British Industry judging by the title of the Informal Discussion Evening **What is wrong with Industrial England?** which took place in Sheffield (24 February) and in Leeds (14 April).

In the 1930's, members began to title themselves **Chartered Mechanical Engineers**. This is by virtue of King George V giving the IMechE its Royal Charter on 22 April 1930. This is not to be confused with the title 'Chartered Engineer' with the designatory letters "CEng" which is conferred on those engineers (in any discipline of engineering) who are registered with the Engineering Council.

#### **GRADUATES**

Eight years after the Branch had been formed, local graduate and student members were given approval for the formation of a Graduates Section. The Graduates Section of the Yorkshire Branch was not, however, the earliest one in the Institution. IMechE Council Minutes of 21 October 1927 mention Graduates Committees in the Midlands and in the North Western Branch Areas. The Yorkshire Graduates Section was, however, to be the next Graduates Section to be formed.

Such developments were still being controlled by HQ and so the official approval of the Yorkshire Graduates Section stemmed from the Institution's Local Branches Committee Meeting that was held on 9 January 1929, which then had to make a recommendation to the Council Meeting of 18 January 1929 to form a Graduates Section in the Yorkshire Branch. The Council approved this recommendation and furthermore they awarded the Graduates Section of the Yorkshire Branch a grant of £40. The formation of the Graduates Section Yorkshire Branch then took place at a Meeting on 6 March 1929 at which the Chairman of the Local Branches Committee, William H Patchell (a past President of the Institution) was present. The membership numbers for Yorkshire recorded on 1 January 1929 show 77 Graduates and 127 Students out of a total membership of 664.

The development of the Graduates Section could not have taken place without the individual contributions of its members and its early Committee members. The earliest surviving details of the Yorkshire Branch Graduates Section Committee appears to be for 1931 when the Chairman was AC Farran with Committee members HF Ellis, CL Forbes, WG lbberson, CST Paul, GH Pearson and L Shackleton.

See **Appendix Note 2** for later Graduates and Students Committee members.

Visits for the Graduates Section arranged in the 1930s included Lumbys Ltd, Boiler Works, Halifax; P Garnett & Son Ltd, Paper Manufacturers, Otley; Newton Chambers, Sheffield; and Sheffield Tramways and Motors Department. Perhaps it was this last visit that initiated a joint discussion with student members of the Institution of Electrical Engineers in 1938 entitled **That electric propulsion is superior to all forms of mechanical propulsion for vehicular transport**.

Institution and Branch Graduates prizes were awarded from the early days. For example, in 1930 CST Paul received a prize of £6 for his paper **Propeller Type Water Turbines** and JC Sahney received £2 prize for his paper **Impact effects in the Design of Bridges**.

Over the years, numerous other graduate or student members received Branch prizes, of which the following is a selection:-

- 1937 The distortion of metals by cold working by HA Wainwright
- 1948 **Heat Transfer** by ADG Fitzjohn
- **Automatic Industrial Finishing** by GP Vickers, which received an Institution Prize
- 1956 Oil Filters and Strainers by GG Sharp
- 1963 Cold Forging of Railway Steel by JW Drewery
- 1966 Coal by Water by JJ Bass.

#### **LOCAL LIBRARY**

An early service to members of several Institutions in Yorkshire was the provision of a local library housing bound volumes of Institution proceedings, "Engineer", "Engineering" and some donated technical books. Branch records show that the local library was housed within the reference department of Leeds City Library and continued in existence until 1937. At that time a decision was taken to close the local library and the books were offered to, and were accepted by, technical colleges and universities in Yorkshire.

#### **THE YEARS 1939 TO 1945**

As might be expected, the period of hostilities created problems and the usual practice of holding mid-week evening meetings was changed during the 1940/41 session to Saturday afternoon meetings with only four meetings in the programme. Eighty-four members were present one Saturday afternoon in Leeds in 1942 to hear the President, Mr. WA Stanier, deliver his Presidential Address The position of the locomotive in Mechanical Engineering. However, later in the same year evening meetings were again held in both Sheffield and Leeds for Arnold Throp's paper, Marking Methods and War Production. The Branch Chairman's Address for 1942 was given by G Varley The reconditioning of blitzed machine tools. Also of note is that in 1945, the Thomas Hawksley lecture The Scientist in Wartime was given by Sir Edward Appleton. Post-war, Dr HJ Gough's paper Research and development applied to bomb disposal created interest in the Branch. However, the one topic that caught the imagination of members and resulted in capacity attendances at the City Museum, Leeds, on 13 February 1946, and the following evening at the University of Sheffield was the first James Clayton Lecture The early history of the Whittle Jet Propulsion Gas Turbine by Air Commodore F Whittle CBE.

## MORE OF THE FIRST 50 YEARS

Some more highlights amongst many lectures are:

1932	<b>Salvage work on the ex-German Fleet at Scapa Flow</b> by E Cox at the Queen's Hotel, Leeds, about the problems of raising 25 destroyers and 4 battleships and cruisers.			
1932	Causes of brittle fracture in ductile steels by Professor B Haigh.			
1934	<b>Bluebird 1930-33</b> by RA Railton at Leeds, being a joint meeting with the North East Centre of the Institution of Automobile Engineers.			
1934	<b>Aerodynamics</b> by Professor RV Southwell at Leeds, preceded by an afternoon visit to the Blackburn Aeroplane Co Ltd, Brough.			
1937	The main and auxiliary machinery of the Queen Mary at Sheffield.			
1937	<b>Television</b> by TG Macnamara of the BBC attracted considerably larger than average attendances at Bradford and Sheffield.			
1937	<b>Machine Tool Tests and Alignments</b> by Professor Dr Ing G Schlesinger at Keighley.			
1944	<b>Applied Research</b> by Dr HR Ricardo, being his Presidential Address, at Leeds.			
1954	<b>The raising of HM Submarine Truculent</b> by Lieut Commander L Hackman at Leeds.			
1955	The scope of Work Study by RM Currie at Wakefield.			
1958	Quality in Engineering Manufacture by F Nixon.			
1961	Flexible Containers for the transport of oil by Professor WR Hawthorne at Hull.			
1963	<b>Design and Productivity</b> , the James Clayton lecture by HG Conway.			
1967	The Channel Tunnel by EW Jacomb Hood at Leeds.			
1970	Tribology Conference at Sheffield.			
1970	Robotics by Professor Thring.			

#### ON REFLECTION

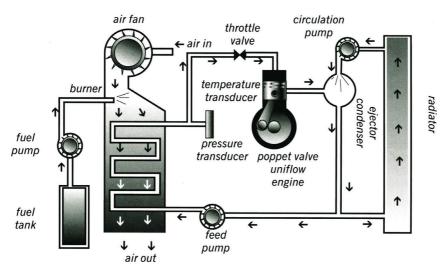
Although it might be said that the credit for conceiving Institution Branches should be given to the then President, Michael Longridge, who on 12 June 1918 sought views and comments on the "Interests of Local Members", it could also be argued that he was not launching something new. Michael Longridge had been a member of Council in 1908 when a minute recorded "That the proposed Branch of the Institution in Calcutta be called a Local Section of the Institution of Mechanical Engineers". Council Minutes of 15 January 1908 approved the Rules for the Calcutta and District Section and reported that the "First General Meeting of the Local Section of Members in Calcutta had been held on 10 December 1908". Over the next 10 years, Council Minutes make reference to the Calcutta and District Section with their reports etc. Then in 1918, references to the Section peter out. Letters regarding the Section are referred to in Council Minutes, but not their contents. However, Calcutta was a Section and not a Branch, and so Yorkshire still qualifies as being the first Branch of the Institution.

Despite it having had rules for a Section, the Institution needed to write its rules for Branches. There is a suggestion that the Institution used the Centres of the Institution of Automobile Engineers as the model for its Branches – at the time the IAE operated a successful system of Regional Centres. The IAE called them "Centres", whereas the IMechE preferred the name "Branches".

But why choose the Institution of Automobile Engineers to copy? The Inaugural Meeting of the IAE was held on 7 November 1906 at the Headquarters of the Institution of Mechanical Engineers, and indeed the IAE held all its initial lectures at the IMechE. The IAE's move to London had in fact closely followed that of the IMechE – the IMechE had been formed in Birmingham in January 1847, and after 30 years moved to London. The beginnings of the IAE can be traced back to being formed in Birmingham on 17 January 1896, and later it too moved to London. Hence it could be said that there was an affinity between these two Institutions. The IAE had created Regional Centres as early as 1908: Centres in London, Birmingham and Coventry were created in 1908; the North of England Centre was created in 1911; then the Scottish Centre in 1914; Wolverhampton in 1920; and subsequently Western in 1926. So had the IAE set an example for the IMechE to follow when it wanted to create its Branches?

After the creation of the IMechE's Yorkshire Branch, there was local cooperation between the IMechE and the IAE with a joint event such as the 1934 lecture on "Bluebird" presented by IAE member Reid Railton at which

146 people attended. After this initial closeness at national level, the eventual amalgamation of these two Institutions seemed inevitable. The formal amalgamation between the IMechE and the IAE took place on Friday 13 April 1947, and with it the Automobile Division was created as the first Division in the IMechE. On 14 May 1947, the IMechE Yorkshire Branch Hon Secretary, JG Jagger, attended the Automobile Division NE Centre's Committee Meeting and said that he hoped that the Branch and the Centre would work together. Hence from that date onwards, the Automobile Division has supplemented the Branch lectures and visits with Divisional lectures and visits for the benefit of all members in the Yorkshire Branch Area.



Improved steam engine design that condenses steam for re-use:-

Then Graduate Member Malcolm Heywood of Hopkinsons received an Institution prize in 1969 for his paper on Steam power for road vehicles. His research revealed that there were at least 19 companies worldwide (including Ford and General Motors) actively involved in the design and development of steam units. This lecture was first presented at a Branch Meeting at the George Hotel, Huddersfield on 1 April 1968, and was repeated at other locations. (This image is from the Automobile Division, Yorkshire Centre Book Automobile Engineering in Yorkshire. The artwork for this image was produced by Terry Bambrook from Mr Heywood's original diagram).

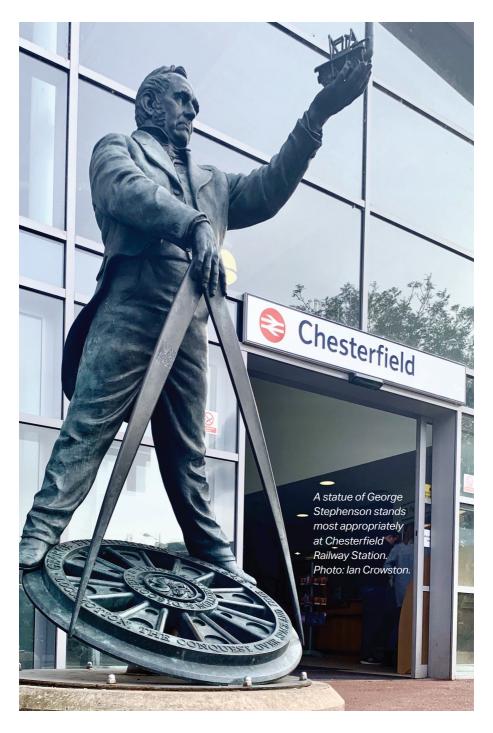
#### THE MEMBERS WE SERVE

In 1964, after there were changes to the Yorkshire Branch boundary, it was renamed "The North Midlands Branch" which was defined as the counties of; the East Riding of Yorkshire, West Yorkshire, South Yorkshire, North Yorkshire (excluding that part north of a line running east-west and slightly north of Scarborough) and that part of Derbyshire (excluding the High Peak) and of Nottinghamshire (including the postal districts of Chesterfield and Worksop) within a radius of 20 miles of Sheffield, and Sedbergh in Cumbria (Sedbergh incidentally was historically part of the West Riding of Yorkshire). The inclusion of Chesterfield in the Branch boundary is of special significance as the first President of the Institution, George Stephenson, lived in Chesterfield and is buried there at Holy Trinity Church.

At the beginning of 1968, Eastern, Northern and Southern Panels of the Branch were formed to assist in the arrangement and running of Branch activities such as lectures, visits and social evenings. This creation of the Panels brought lectures and visits even closer to the membership, but of course this implied that most "Branch lectures" would not continue. For the future this meant that apart from co-ordinating the work of the Panels, the main Branch activity would be to host Presidential Visits and other prestigious events. On successive years, the then President was invited to visit a different Panel, each Panel taking it in turn to host the visit and showcase its local industry, its educational facilities and its outstanding achievements, as the case may be.

In 1969, the amalgamation between the IMechE and the Institution of Locomotive Engineers took place, and with it the Railway Division was created as a new Division in the IMechE. The local Railway Division North East Centre covered a larger area than Yorkshire, stretching into the North Eastern Branch, and being somewhat similar indeed to the North Eastern Centre of the Automobile Division. The local Railway Division thus added another tier of lectures and visits that were available to the Branch members.

The date of the Branches' Annual General Meeting has varied over the years - the rules require that Branches have their AGMs prior to the Institution's own Annual Meeting. Until 1960 the Annual Meeting of the Yorkshire Branch was held in January. From 1961 until 1971 it was held in March. At this time the Institution Annual Meeting was held in April and from 1982 onwards the HQ Meeting has been held in May.



In 1981, the Graduates and Students Section was renamed as the Young Members Section.

In 1985, a significant change took place in the way the Branch was organised and administered. The Institution issued a memo to Branches deploring the way that some Branches used the goodwill of members' companies to get Committee Minutes typed, for members to use their company's stationery, their franking machines, photocopiers and telephones etc. As a consequence, all Branches were expected to appoint an Admin Officer to take on these actions and for the Admin Officer to be reimbursed appropriately. Denis Bradley was to have been the North Midlands Branch Hon Secretary but instead was encouraged to take on the role of Admin Officer. Pam Edwards took the role of Hon Secretary (later as Pam Liversidge she was to be the first Lady President of the Institution). Mention might also be made about the then Branch Chairman, Arthur Dixon, who had the distinction of being the second person to serve for a second time as Chairman. He was Chairman first in 1972/3, and then for 1985/87. Major FL Watson had previously served for three years in two stints, 1922/3 and 1930/2. Chairmen usually serve for one or two years. To date, the only other person to have served three years as Chairman in Yorkshire was Ashley Crossland (2003/6).

In 1985, the Automobile Division North Eastern Centre (which ranged from Yorkshire to the Scottish border) decided to split into two Centres so as to better serve its members. The north of the Centre became the Tyne-Tees Centre, whilst in the south the Yorkshire Centre was established with its boundary identical to that of the North Midlands Branch. Eventually, in 2018, the Tyne-Tees Centre renamed itself as the AD North East Centre.

In 1980, the Huddersfield/Halifax Panel was formed by splitting that part away from the Northern Panel - the Northern Panel being the largest Panel in the Branch, and the Huddersfield/Halifax Panel being the smallest. However, the Huddersfield/Halifax Panel became dormant by 2003. It was re-launched in March 2010 and became the Western Area.

In 1993, the North Midlands Branch reverted back to the more appropriate name of "The Yorkshire Branch". Then in 1998, the Institution's long established Branch and Panel structure was replaced by Regions and Areas, and so the "The Yorkshire Region" came into being. This new outlook and structure to the whole Institution could be said to have been pioneered by Pam Liversidge whilst she was President of the Institution from 1997 to 1998. The Inaugural Meeting of the Yorkshire Regional Committee was held in June 1998.



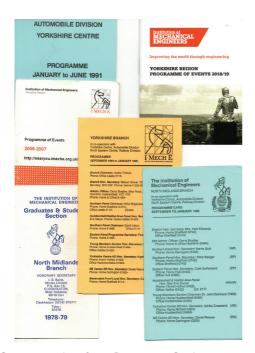
One of the last acts of the Yorkshire Branch was to collaborate with its neighbouring Branches on redefining the Branch boundaries along postcode lines – see the new Regional map of 1988 (above). Also see **Appendix Note 3** for details of the boundary changes. These boundary changes meant that at the start of the Yorkshire Region its membership was 4319.

The Regional Committees performed more of a co-ordinating role than the Branches which they replaced, with much more of the organising being delegated to the areas – Northern Area, Eastern Area, South Yorkshire Area and Huddersfield/Halifax Area. However, local Automobile and Railway Divisions, which then were the only Divisions which operated in Yorkshire, continued to operate mainly as before with their budgets presented directly to their Divisional Boards at HQ. The Humberside Centre of the Process Industries Division, which overlaps onto the Region, became active again in 2003 for a few years. After a lapse, a Yorkshire Centre of the Process Industries Division re-emerged in 2019.

The Region Committee's structure now consisted of the elected Chairs of its Areas, together with the Chairs of the local Divisions, the Young Members Section and the Senior Members Committee. There was no route to get directly elected to the Regional Committee as had been possible for the Branch Committee, although the Region was given the ability to co-opt individuals for specific responsibilities which meant the Yorkshire Regional Committee was able to be increased to a viable size. In addition, the Yorkshire Regional Committee also had its Admin Officer in attendance. Later, IMechE Regional Managers joined the Regional Committees (four Regional Managers for England were recruited into the Institution on 12 October 1998, with the Manager for Scotland and Ireland being appointed in February 1999). Caroline Micklethwaite was appointed Manager to the Yorkshire, East Midlands and North East Regions and initially she had a base at WS Atkin's office in Leeds. Caroline Micklethwaite continued in this post until 2000. The task for Regional Managers was to bring the Institution's Headquarters at Birdcage Walk, London, and its office at Bury St Edmunds (now no more but at the time it handled membership, finance and education services) to be closer to the membership, to industry and academia, and indeed to the general public. After Caroline Micklethwaite, Peter G Collins then served as Regional Manager. However, the role has been redefined as Business Development Managers and Denis Healy has been Business Development Manager for Yorkshire and the North East since 2008. Also, more recently from 2019, Denis has had a responsibility for Northern Ireland

Denis Bradley was the Branch Admin Officer from 1985 up to 1998, and when he decided to retire the post was taken over by Jim Douglas, another well-known Institution member. The timing of the change of post-holder on 1 July 1998 coincided with the end of the Branch and the start of the Region. In September 2005, Mrs Charlie Baxter who had served on the Northern Area Committee for several years, succeeded Jim Douglas. In 2011, Mrs Nicky Baxter took on the role and continues in this post at the time of publication.

#### THE PROGRAMME CARDS



Some examples of past Programme Cards.

The main work of the local Committees is to arrange a programme of lectures, visits and other events for the membership and to feed back to the Region views and opinions on matters affecting the profession. The events get collated and for many years a Programme Card was printed and mailed to members. Individual Programme Cards used to be printed by the various Committees - Branch/ Region, the Young Members, the Automobile Division etc. The card for 2003/4 was also sponsored, a feature that has continued. The card for 2015/16 was, however, the last one to be mailed out in bulk to

4218 members. The rise in the internet and emails meant a shift in the use of Programme Cards, although a reduced quantity of cards continued to be printed and sent to members who requested them, and cards were often available at the events that members attended. The Business Development Manager, when visiting companies to promote the Institution, also found the Programme Cards useful.

#### THE SUPPORT NETWORK

Over the years, local members have been involved with the Institution's Support Network which is actually a separate organisation that works with the Institution to provide advice, support and financial assistance to Institution members and their families. The Benevolent Fund of the Institution of Mechanical Engineers was founded in 1913 and was renamed as the Support Network in 2009. The annual subscription to the Institution invites a small contribution which is gratefully appreciated

and which funds the work of the Support Network. The Network exists to support those in need, but often those in need can be too proud or embarrassed to make their situation known. This is where any Institution member could help start the ball rolling by advising the Headquarters of the Support Network where their assistance might be appropriate. Help and support (some by professionals) can be provided typically from the Headquarters of the Support Network, although in the Yorkshire Region there have been typically 5 or 6 local volunteers who could make a personal visit. Sometimes a visit and a friendly chat might suffice, although assistance can extend further. The recipients of support have complete confidentiality and are known only to the relevant officials in the Support Network. Recipients used to be thought of as the bereaved or infirm, but this has changed over time, and some Young Members for instance have been found to be deserving. The Network has assisted with employment coaching and CV preparation, legal advice, debt advice, counselling, financial support, and in many other ways.

#### **VISITS**

Visits to industry and academia have always been popular with members, and local concerns have responded generously by providing hundreds of visits. However, arranging a daytime visit for say the IMechE President with a small number of people accompanying him/her is relatively easy to arrange compared to arranging an evening visit for a party of say 25 or 30 people.

The logistics in providing a visit for a large party at any time presents the host with numerous problems. They are bound to think "Why should I do it? None of the visitors will buy anything from me. I will have to prepare visitors' badges and give them the Site Safety Briefing and get in a batch of safety glasses and new hard hats and high-visibility jackets. For an evening visit I will have to get staff in at night to act as guides and to make it interesting I will have to have some of the processes running. Also I would need to get some staff to stay back and help put on some tea and biscuits and I don't want any of the competition snooping around". Arranging visits might have seemed less complicated in the past.

Nevertheless, Yorkshire companies and educational establishments have kindly obliged by hosting visits and they have always delivered very interesting and informative tours of their facilities, which has been greatly appreciated by those attending. However, having highlighted some of the difficulties of arranging evening visits, the Senior Members Committee

has been able to enjoy daytime visits and lectures, usually accompanied by an optional lunch at a local venue. Looking back, the first event of the Senior Members Committee appears to have been a visit to the Royal Mail's automated sorting office at Stourton, Leeds, on 17 February 2000 at 2.00pm. The next Senior Members event was on 15 March 2000 which was a talk on "The ultimate in turbine blade manufacture" by Nigel Gorman at AE Turbines Ltd at Yeadon, Leeds. This began at 10.30am and was followed by an optional lunch. This was followed-up by a visit around AE Turbines' factory on 12 April 2000, again at 10.30am to be followed by lunch for those who so desired. One might think that the Senior Members were the most active Section in the Region with their next visit being to the National Coal Mining Museum on 23 May 2000. Of course these visits usually had a limit on numbers, but they have proved extremely popular by being organised jointly by IMechE and like-minded Senior Members of the Institution of Engineering and Technology (previously called the Institution of Electrical Engineers).



#### Presented to BAE SYSTEMS, Brough

in recognition of their support for the

Institution of Mechanical Engineers

Presented by the President J D McDougall CEng FlMechE and members of the IMechE Yorkshire Region 28th March 2003

In acknowledging the support and cooperation of companies, the Region has shown its appreciation by offering the host a stainless steel plaque (about A4 size) to record the visit. These plaques were introduced around the year 2000 and many are given pride of place in company reception areas or board rooms. The "squared-up" horse logo of the Institution (see above) was current from about 1990 to 2008. The Institution's distinctive red banner logo has been in use since 2009.



Some of the members of the Yorkshire Region on its visit to the Houses of Parliament on 23rd March 2000.

The photograph above is of the Yorkshire Region's special visit to the Houses of Parliament, to learn how to lobby a Member of Parliament on engineering matters or indeed any other matter. Some twenty members of the Region visited London and first attended the Institution's Headquarters in Birdcage Walk to have a talk on the workings of MPs and on the lobbying process. In the afternoon, they were privileged to have a guided tour of the House of Commons.

#### PRESIDENTIAL VISITS

The Region has regularly invited the President of the day to visit Yorkshire, and this has presented a great opportunity to showcase the Region's engineering achievements, its educational establishments and to bring the President closer to Yorkshire members and their employers. Usually during their visit, the President would also be invited to present prizes and awards that had been won by local members or perhaps present an Engineering Heritage Hallmark Award. The visit usually concluded with the Regional Chair hosting a Dinner in honour of the President.

In April 2006, Andrew Ives made a Presidential Visit to the South Yorkshire Area and the itinerary may be of interest:

With the theme of the day – "Young People – Future Mechanical Engineers", the President visited Hinde House School (near Meadowhall) for a "bridge building" competition which he was to judge.

The President attended the AMRC – the Advanced Manufacturing Research Centre - (off Sheffield Parkway) for lunch. The President addressed students (16 to 18 year olds) and presented project prizes.

He visited Kelham Island Museum where he met the Museum's Director. He presented John Bramah and Jonathan Bramah each with a miniature replica of the Engineering Hallmark Heritage Award plaque that he had presented a year previously to the Bramah Hydraulic Press. John and Jonathan were presented with these plaques at the relaunch of the Museum's Children's and Transport Gallery - the Gallery having been established with financial support from the Region.

Andrew Ives then attended a Special Regional Committee Meeting held at the Courtyard by Marriott Hotel, with those IMechE members attending the Dinner that followed. The Committee Meeting was chaired by Bob Burrows, Vice-Chairman of the Yorkshire Region. Then the Regional Chairman hosted the Dinner in honour of the President at the Hotel.

Also to note, since at the time talks were proceeding with the Institution of Civil Engineers about closer ties, the ICE incoming local Chairman and the ICE Regional Manager were able to join the assembled company at the President's Dinner. Although occasional contact with ICE had been had in the past, the more recent contacts with ICE started in 2005 with a joint lecture, and a further joint Meeting had been arranged for the coming session. There have, however, been other talks of mergers with other Institutions, but it would appear that only the amalgamations with the Institutions of Automobile Engineers and Locomotive Engineers have so far occurred.

Up until 2011, a modest private Dinner used to be held which was attended in general by the main people that the President had met during the visit together with some Committee members. However, for his President's Visit to the Region in 2012, Professor Rod Smith was to visit his home territory of the South Yorkshire Area and he suggested a larger and more formal Dinner as the closing part of his visit. Thus, in March that year, a Regional Dinner more like the main Institution Dinner was arranged at the

Cutlers' Hall in Sheffield. The response to this event was very encouraging with almost 200 guests attending and which has continued annually at this venue with the Master Cutler, the President and the Regional Chair all making their addresses. The "President's Dinner" has been hosted at the Cutlers' Hall regardless of which Area was hosting the visit that year. (Note that the Regional Dinner had been arranged at the Cutlers' Hall in 2020 but the Covid-19 pandemic caused it to be initially postponed and later cancelled for that year.)

It can be claimed that the success of the "President's Dinner" at the Cutlers' Hall was made possible by being able to build on a more informal Yorkshire Region celebratory Dinner that had been held at the Royal Armouries in Leeds on 27 March 2009. This function attracted the support of members, local business and academia, and allowed an opportunity to present certificates to new Members and Fellows of the Institution (of all grades). The certificate presentations took place in the Museum's Tournament Gallery, with a keynote speech made by Colin Brown, the Institution's Director of Engineering. There was an attendance of 60. This Dinner was mainly organised by the Northern Area and it can claim to be the re-start of Yorkshire Regional Dinners for paying guests.



The President and some past Presidents at the Regional Dinner at the Cutlers' Hall, Sheffield 2017. L to R: Patrick Kniveton, Professor Isobel Pollock-Hulf OBE, President Jon Hilton, Pamela Liversidge OBE, Professor Rod Smith, Group Captain (soon afterwards Air Commodore) Mark Hunt OBE.

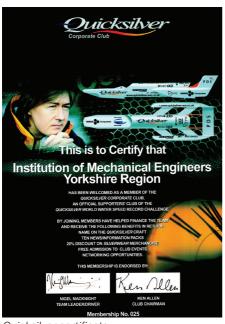


After-dinner networking at the Cutlers' Hall, in 2018.

#### IMECHE ENGINEERING HERITAGE AWARDS

The Institution recognises important engineering artefacts with its Engineering Heritage Hallmark Scheme Awards (revised in 2007 as its Engineering Heritage Awards), and Yorkshire has more than its fair share of these awards, reflecting its engineering excellence and inventiveness. Three of these engineering heritage artefacts reside in Sheffield's Kelham Island Museum, but there are more across Yorkshire. Presidents and other visiting dignitaries have kindly made the presentations of the Heritage Awards. Some of these are as follows:

In 1985, one of the early EHHS awards was made to the quick-reversing 12,000 horse power River Don steam engine, built by Davy Brothers of Sheffield in 1905, which was to drive a mill rolling armour plate at Charles Cammell's Grimesthorpe Works. This engine was transferred to the River Don Works of the English Steel Corporation and the engine is now generally known as the River Don Engine. This engine is now preserved at Kelham Island Museum, Sheffield, which was opened in 1982 and in its early years was attracting up to 50,000 visitors a year.



Quicksilver certificate

In October 2002, an EHHS plaque was presented by Sir Michael Moore (Chief Executive of the Institution 1998-2006) to Fluent Europe Ltd, Sheffield, for its CFD (computerised fluid dynamics) software. The day was combined with a prestige lecture on 'Quicksilver' world water speed record – Fluent software was used in designing the craft. The Yorkshire Region became a member of the Quicksilver Corporate Club and gathered sufficient IMechE support to have the IMechE logo on the hull of the craft.

At Kelham Island Museum is the last surviving Bessemer Converter. The Bessemer Converter revolutionised the steel industry and was awarded an Engineering Heritage Hallmark Scheme Award in 2004.

One truly remarkable Yorkshire invention is the Hydraulic Press which was patented in 1795 by Joseph Bramah. The last one of Bramah's original presses is located at the Kelham Island Industrial Museum and was painstakingly restored to full working order over a period of two years. The press was built around 1805 and was installed in the Tower of London, to be used by map makers working for the Ordnance Survey.

This Hydraulic Press was recognised by the IMechE with one of its Engineering Heritage Hallmark awards in April 2005 when Andrew Ives (IMechE Deputy President) presented an EHHS plaque to be received by the Museum's Curator. The ceremony was also attended by current day members of the Bramah family and other local IMechE officials.

Note that Joseph Bramah was born near Barnsley in 1748, and amongst other things is also noted for his "un-pickable" locks. The only known portrait of Bramah hangs at the Headquarters of the Institution of Mechanical Engineers, which also presents the Bramah Medal for outstanding achievement tending to advance the science of mechanical engineering, particularly in hydraulic engineering. His inventions include the water closet, rotary pumps, fire engines, beer pumps, the fountain pen, as well as printing machines. The hydraulic press was the third prestigious Heritage Award made to artefacts at the Museum.

On the 8 November 2018, John Wood, Chair of the Engineering Heritage Committee and a Past President, presented the 123<sup>rd</sup> Heritage Award to Chesterfield's Barrow Hill Roundhouse. Credit for submitting the application for this award must go to R (Bob) A Nash, Regional Hon Secretary from 2000 to 2009 and a past member of the South Yorkshire Area Committee. There are, of course, other railway-related Heritage Awards across Yorkshire, including "Mallard" at the National Railway Museum in York. This, the world's fastest steam locomotive of the time, was designed by Sir Nigel Gresley, past President of the Institution, and was built at Doncaster in 1938.

#### A PROUD AND DISTINGUISHED REGION

Space does not permit every activity and Committee member to be recorded here, but the comments from the four Area Committees and the Divisions later in this booklet will expand on the Regional events. However, without wanting to single out anyone, mention might be made of IMechE Presidents from the Region, many of whom have been active on local and HQ Committees which has helped them in their role as President. With a loose definition of who was a Yorkshire President, there have been:

1847	George Stephenson (IMechE's first President, Chesterfield)			
1931	Lt-Col Kitson Clark (First Branch Chairman, Leeds)			
1936	Nigel Gresley (Doncaster, n.b. Knighted 1937)			
1943	Professor Frederick C Lea (University of Sheffield)			
1953	Alfred Roebuck (Hadfields Ltd, Sheffield)			
1961	Sir Kenneth Hague (born Leeds)			
1982	Victor John Osola (born Hull)			
1988	Oscar Roith (early General Manager at BP Chemicals Site, Hull)			
1992	<b>Professor Duncan Dowson</b> (Yorkshire and North Midlands Branch Hon. Secretary 1963/1966; Professor at the University of Leeds)			
1997	Pam Liversidge (North Midlands Branch Hon Secretary)			
2003	<b>Professor Chris Taylor</b> (born Leeds, Vice-chancellor University of Bradford)			
2011	Professor Rod Smith (University of Sheffield)			
2012	Isobel Pollock (who steered Yorkshire to being named "Branch of the Year" when she was Yorkshire Branch Chair 1993/1995)			
2013	<b>Patrick Kniveton</b> (born Scarborough, studied at the University of Leeds)			

Further proud moments for Yorkshire Region members include Professor David Barton and Brian Shilton being jointly honoured as "Outstanding Regional Member of the Year" in 2003. They were the Joint Chairmen of the Automobile Division Yorkshire Centre's Committee which organised the two and a half day International Conference 'Braking 2002', held at the prestigious Royal Armouries Museum, Leeds.



A photograph of three Yorkshire Presidents: L to R: Duncan Dowson, Patrick Kniveton and Chris Taylor. Photo: Patrick Kniveton.



Professor Duncan Dowson, President for 1992-1993 is pictured here visiting BBA Friction's Mintex Don Factory at Cleckheaton as part of his visit to the North Midlands Branch. On his visit, Professor Dowson viewed progress on a £6M development of the factory.

L to R:- David Raynor, Branch Chairman; Professor Dowson; Rex Watson, Huddersfield and Halifax Panel Chairman; Terry Robins Director, Engineering & Acting Secretary, IMechE; and Dr Martin Haigh, R&D Manager Mintex Don and a member of the AD Yorkshire Centre Committee.





These medal presentations formally took place in front of an audience in the lecture theatre used for the evening's event.

Left: Rex Watson (L) being presented with an Institution Gold Medal by the Regional Chairman, David Eaton, and watched by Regional Manager Caroline Micklethwaite. Photo: Huddersfield Examiner. Right: Ashley Crossland (L) shown in the Council Chamber at Headquarters being presented with an Institution Gold Medal by AD Chairman Michael Monaghan.

Also, an Institution Gold Medal was presented to a past Branch Chairman, Rex Watson, on 15 October 1997, the ceremony being performed by the Regional Chairman, David Eaton, at the start of a lecture held at Huddersfield University where Glynne Bowsher, Chief Mechanical Designer of the Thrust SSC Team, attracted over 200 people for his presentation about the world land speed record car. Mr Watson had been awarded the medal for his work during the Institution's 150<sup>th</sup> Anniversary celebrations. Appropriately only 150 such medals had been minted and most were presented to recipients at suitable ceremonies at Headquarters. At the time of his presentation, Rex Watson was Chairman of the Huddersfield/Halifax Area. Ashley Crossland was presented with an Institution Gold Medal by Michael Monaghan on 3 October 2000 at Headquarters, just before the start of Mr Monaghan giving his AD Chairman's Address.

The Manufacturing Award MX 2004 was awarded to Gripple, in the Region's South Yorkshire Area.

AESSEAL plc was the overall winner in the Manufacturing Award MX in 2006 and 2011 and in 2020 AESSEAL plc's Group Managing Director, Chris Rea, was awarded an Honorary Fellowship of the IMechE.

Ross O'Brien from the Eastern Area who whilst working for BP Chemicals (Hull Site) was the winner of the IMechE's 2018 Young Member Visionary Award. In 2020, he was elected to the IMechE Trustee Board as their "under 30" member.



In the new Millennium, a magnificent badge of office was made locally for the Chair of the Region. This illustration shows the design created by D Eagleton in 2001, for a hallmarked silver badge heavily gold plated, and featuring a centre panel of the Institution's Coat of Arms. Funds for the badge were not available from the Institution, nor was the Region allowed to purchase it from its grant, and an alternative way of acquiring this badge of office had to be found.



Some of the Regional Committee photographed at a Committee Meeting in 2020.

L to R: Ashley Crossland, a past Regional Chairman and Hon Secretary of the Automobile Division Yorkshire Centre; Nicky Baxter, Admin Officer; Brian Lawson, Chairman of the Western Area; Alan Brattan, Immediate Past Regional Chairman; Phil Wedgner, Chairman of the Eastern Area; Carolyn Griffiths, Past President (guest); Luke Farmer, Regional Chairman; Ian Crowston, Regional Education Officer; Stephen Shaw, Hon Treasurer and a past Regional Chairman; Alison Traynor, Hon Secretary; and Bob Burrows, a past Regional Chairman.

#### MEMBERSHIP NUMBERS

Yorkshire's Regional membership was approximately 4033 in October 2003, making it the 9th largest (in terms of numbers) of the 16 "home" regions. (The Republic of Ireland Region is treated as a home region.)

The last count of members in the Yorkshire Region taken before the publication of this book was 5678.

## CHAIRS OF THE BRANCH/REGION

#### Leeds Local Branch / Yorkshire Branch (1) / North Midlands Branch / Yorkshire Branch (2)

#### Yorkshire Region

1921/22	Lt-Col E Kitson Clark	1967/68	JE Robinson
1922/23	Major FL Watson	1968/69	C Ellis
1923/24	F Clements	1969/70	WP Polling
1924/26	Prof. GF Charnock	1970/71	GE Thompson
1926/28	JH Barker	1971/72	GR Blakely
1928/30	Prof. FC Lea	1972/73	AGM Dixon
1930/32	Major FL Watson	1973/74	JG Dickson
1932/34	AH Gledhill	1974/75	GD Ingham
1934/36	GE Wolstenholme	1975/77	JA Watson
1936/37	Prof. HW Swift	1977/79	EJ Murray
1937/39	A Roebuck	1979/81	MJ Bennett
1939/41	J Stafford	1981/83	GW Howard
1941/42	D Waterhouse	1983/85	EJ Grossman
1942/44	G Varley	1985/87	AGM Dixon
1944/45	JH Barber	1987/89	P Bowman
1945/46	Dr J Ward	1989/91	K Ross
1946/48	SF Benson	1991/93	DA Rayner
1948/50	W Johnson	1993/95	IA Pollock
1950/52	EC White	1995/97	R Watson
1952/54	CJ Minter	1997/99	DE Eaton
1954/56	CL Forbes	1999/2001	PH Harrison
1956/57	A Throp	2001/03	JA Slater
1957/58	E Watkinson	2003/06	AW Crossland
1958/60	EN Taylor	2006/07	R Burrows
1960/61	JG Jagger	2007/09	SM Shaw
1961/62	H Townend	2009/11	M Hesketh
1962/63	EF Wooldridge	2011/13	AJ Hamilton
1963/64	RF Clarke	2013/15	SP Wainwright
1964/65	Dr AS Leah	2015/17	Dr PM Ingham
1965/66	JA Fuller	2017/19	A Brattan
1966/67	JN Adcock	2019/21	L Farmer

### THE REGION'S AREAS

All the Area Committees in the Region rely on the expertise and experience of the many voluntary Committee members who willingly contribute to arranging a full programme of events for the benefit of their local members. The contribution from local Committee members is gratefully appreciated as is the support from individuals and industry that provide the lectures and host the visits. The attendance from members at the events is appreciated, which of course is the driver for the Area programmes. Thanks also go to the organisations that kindly host Committee Meetings and lecture venues.

In addition of course, the Young members collaborate with their Areas and also arrange their own series of visits, lectures and social get-togethers, and also make a significant contribution in helping to run the Region's main STEM events. Recently they have also organised a series of highly regarded Webinars on Diversity and Inclusion in Engineering which were contributory to forming the IMechE's latest strategy on this topic.



A photo of Naylor cars at the Naylor Cars Ltd factory: This Yorkshire car, the Naylor TF1700, was the subject of Alastair Naylor's lecture at the University of Leeds on 17 March 1987 - "The Trials and Tribulations of Starting up an Automobile Manufacturing Company", and was a Northern Panel event preceded by the Branch AGM. Alastair Naylor gave an entertaining talk (which might qualify as the longest lecture given in the Branch) about the intricacies of getting a new car through crash-testing and a host of legislation. A follow-up visit was made in June 1988, not to the new-car factory but to the Naylor Brother's Workshop at Shipley, where in a separate business they specialised in MG restorations.

#### **Northern Area**

The Northern Panel Committee was formed in 1968 along with the other two Panels and it has remained active, although in recent times Committee numbers have shrunk. Some of the Chairs of the Northern Panel/Area Committee are shown in the list below. Apologies for where some of the entries have been hard to trace. The post of Chair was vacant from 2018 to 2020.

Year	Chair
1970	EJ Murray
1975/79	?
1980	R Cook
1985/87	D Poole
1989	?
1990	R Burrows
1991	G Frier
1992/97	MC Wigglesworth
1999	Not active
2000	Mrs AJ Simkins
2004/05	JB Firth
2006/07	M Hesketh
2008/10	Ms J Mooney
2011/12	I Newbound
2013/18	C Hewson
2019	No Chair
2020	A Bromley

In its history, the Northern Area Committee has organised a wide range of visits and lectures on both traditional and modern engineering. These local interests range from aerospace, automotive, medical, digital tech and energy. In many cases, the Area Committee has organised visits to places that would otherwise be difficult for individuals to access and equally have organised lectures on topics involving privileged information. One trip was to RAF Fylingdales to see inside the massive three-sided intercontinental missile warning defence system. A visit to the Army Foundation College, Penny Pot Lane, Harrogate, revealed all about UK-funded and built pilotless RAF drones.

A lecture from Professor Davies spoke on the history and progress of robotic surgery, and another trip was on a canal narrowboat through the Standedge Tunnel, the longest and highest canal tunnel in Europe.

In the autumn of 2013, a visit was made to the manufacturing facility of Ginetta Cars located to the east of Leeds. In October 2014, a technical paper on "Aircraft Landing Gear – from the past to the future" was presented by Mike Platt of Messier-Bugatti-Dowty. This provided an overview of aircraft landing gear design covering over 100 years of powered flight from the Wright Flyer to the Airbus A350.

The Northern Area also has been very effective in forming working relationships with other groups both inside and outside the IMechE, such as the IMechE's Automobile and Railway Divisions, and with the IET and the IChemE. Such actions not only enabled the Area to pool resources with others but also to promote prestigious events of common interest. In 2015, Committee member Grahame Platt arranged two joint events with the Yorkshire Branch of the Energy Institute of which he was also a member. The first of these in February 2015, featured a presentation by Dr Leigh Hackett of Alstom Power on the Drax Power Station "White Rose Carbon Capture and Storage Project", a subject of opportunity in the climate change debate. On a related subject and again a joint event with the Energy Institute in March 2015, Richard Taylor, Chief Engineer of the National Nuclear Laboratory presented a paper on Small Nuclear Reactors (SMRs) and their future role in the nuclear energy market. He discussed their unique engineering features and how they may be developed as a versatile source of green energy.

Later in 2015, Grahame Platt also a volunteer at the National Railway Museum (NRM) in York, made arrangements for a family and social visit behind the scenes at the NRM. This collection ranges from many hundreds of original manufacturing drawings, thousands of railway photographs, paintings, carriage upholstery sample books to an art collection of approximately 1,000 items. A number of the paintings became the basis for railway posters of which there is also a collection. It was also a privilege to see the notebook of Robert Stephenson (the second IMechE President after his father George), with performance notes on the Rocket steam engine. This visit proved so popular that it has become an annual event (at least up to the time of writing this book). Other works on display include a one-page letter accompanied with a sketch (protected in a transparent wallet) written by a teenager to his sister in London, the teenager having witnessed the first passenger train journey on the Stockton to Darlington railway in 1825.

A family visit was made to the Caphouse Colliery (now the National Coal Mining Museum for England) located near Wakefield in May 2015. After an introductory presentation, the visiting party attended the mine for a guided tour. The tour demonstrated the development of coal mines in terms of techniques and equipment and displayed the terrible conditions endured by the workforce at the time.

In 2016, at a further joint event with the Energy Institute, a paper was presented by Dave Stone and the subject was "Energy Storage" – The Willenhall 2MW Grid-connected Battery.

The Area Committee met monthly during the session at Trinity and All Saints College Horsforth with a local programme of events which was heightened when it became the Area's turn to host the IMechE Presidential Visit to Yorkshire. This honour came to the Northern Area every four years. The Northern Area made some interesting visits to local companies, for example DePuy Ltd showed a mock-up of a surgical knee replacement. One particular visit was backstage at the Leeds Grand Theatre where taking the stairs up into "The Gods", a white-knuckled President gripping the railings let it be known that, "Yes, I've always had a very deep fear of heights!"

In more recent times, the Universities of both Leeds and Bradford have hosted a number of technical lectures. This has maintained a good link with academia and has been able to encourage the next generation of mechanical engineers studying at these universities. The Young Members Section has been active over the years with an emphasis on visits and social events. Naturally, the Young Members are better able to organise themselves whilst they are studying at a university. Therefore, mention should be made of the Young Members at Leeds and Bradford Universities giving their time to a local primary school with the project to build from scratch and then test and drive, over two days, the "Goblin" electric car. This car was later exhibited at a large STEM event at the Yorkshire Showground. This venture was repeated twice. and it has been reported that some of these children have been so impressed by the experience of building a car that they have gone on to study engineering at university.

Many deserve recognition for the success of the Northern Area. The great interest generated by speakers is often reflected in the quantity and quality of the ensuing questions and discussion. Thanks are due to the local Universities for hosting technical lectures, which in turn generates a good link with academia and students. Also, the Area has enjoyed its fair share of visits to splendid Yorkshire businesses, many who respond regularly and generously when called upon for assistance. Thanks are therefore due

to many individuals, Institutions and businesses for their support over the years, but regrettably there are too many to list here. Thank you.

Mark Hesketh	(Past, Regional and Northern Area Chairman)
<b>Andrew Bromley</b>	(Northern Area Chair)
Grahame Platt	(Northern Area Committee Member)

#### **Eastern Area**

The Eastern Panel Committee was formed in 1968 along with the other two Panel Committees of the Yorkshire Branch (Northern and Southern Panels) and it has remained active ever since. The Chairs of the Area Committee help to plan and coordinate the activities of the Yorkshire Region to deliver the overall objectives of the IMechE.

The Chairs of the Fastern Panel/Area Committee have included:

Year	Chair	Affiliation
1970	PG Cranston	Associated British Ports
1980	A Myers	Not known
1985	B Burton	Not known
1986/87	Dr RD James	University of Hull
1989/91	A Chastney	Not known
1992	B Burton	Not known
1995/96	C Sutherland	Rosedown & Thomson Ltd
2000	D Porter	Not known
2005/09	M R Lake	BAE Systems
2010/13	G Barrick	Edwin Snowdon Ltd
2013/14	A Dhir	Swift Group Ltd
2015/16	A Brattan	BP/Ineos
2017/18	P Cunningham	Swift Group Ltd
2019 to date	P Wedgner	Howden Ltd

Membership was drawn from the relatively small industrial base in the Eastern Area of Yorkshire and has mainly been focused on the Hull and surrounding areas. The membership in the Area totals around 850 (in 2020). Nevertheless, the industries were and remain quite diverse and therefore the local membership has been able to share their engineering experiences across many types of industries during local visits and lectures.

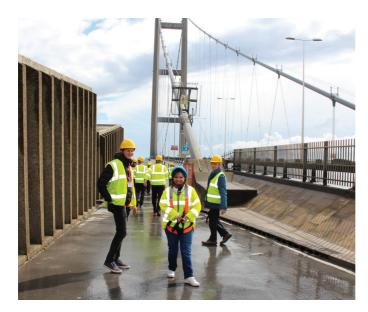
Over the years our local industries have included deep sea fishing, port logistics, petrochemicals, oilseed processing, household products, pharmaceutical and healthcare products, aerospace, crane manufacture, mobile home manufacture, domestic boiler manufacture and more recently green energy, and many of our local companies have pioneered key developments in their industries.

The Area Committee has had a close relationship with The University of Hull (UoH) over the years, which has included staff from the engineering faculty sitting as Industrial Liaison Officers on the Area Committee. This has helped university students access industry experience and jobs, but also helped the Committee encourage young students into engineering careers and to join the IMechE. In recent years, Brian Houston of the UoH has carried out this liaison role par excellence and the university has provided meeting rooms and lecture theatres and also facilities to host larger Area events, e.g. Presidential Visits and some STEM events. Furthermore, Swift Group was one of the founder sponsors of the UoH Formula Student racing car in 2013, and local sponsorship has continued.

Every year, the Area Committee arrange events which are then published on the website for the following September to June. Events over the years were, as now, generally well attended. Recently, some events have been shared with the other major Institutions e.g. the RAeS, IChemE, IET and ICE, and this has often drawn large attendances.

The Area is grateful for the lectures and visits provided over the years by many local and national companies, and this list will illustrate the diversity of subjects covered. Lectures have included the Priestman's "Patent Oil Engine", the Offshore Wind Energy Project (Siemens), the Basics of Bearing Selection (Schaeffler), the Bloodhound SSC Project and many more. Factory visits have included the Vivergo bioethanol plant, Siemens wind turbine blade factory, Swift motorhome factory, Humber Bridge, the Guardian glass factory (Goole), British Aerospace (Brough), Croda Chemicals, the Howdens kitchen factory and the Smith & Nephews factory amongst many others.

A key activity for the Committee over the years has been in promoting careers in engineering to the next generation, namely in local schools and colleges. Many local members have been doing this through their own efforts e.g. Barry Lowe (over several years) and many via their employers' outreach activities, but the Area Committee has provided materials and presenters into primary and secondary schools and also at the larger organised STEM events. Some key "Schools Liaison" members in this have been Adrian Waddington and more recently Marc Paish, who both developed their own classroom resource kits. The larger, full-day STEM and careers events supported by Committee Members and attended by local schools include the Engineering Extravaganzas, TeenTech, STEM in Action, Big Bang, WIME (Women into Manufacturing/Engineering) and the Hull Greenpower events.



Members visit to the Humber Bridge - and some spouses went too!

As with the other Areas, every four years the highlight of the local Committee's year is the Presidential Visit to the Area. In the past, this apparently was a two day event but this has now been condensed into one day's activity.



Mark Hunt on his President's Visit in 2015, with the Formula Student stand at the University of Hull.

Presidential Visits to the Area have included Oscar Roith (then BP's Chief Engineer) who returned to Hull in 1988, where he had been the Works General Manager of the BP Chemicals Hull site. He was very well entertained and was very pleased with the changes ongoing in the area.

Recently, the Area has hosted visits from RAF Group Capt. Mark Hunt in 2015 and Tony Roche (a retired Director of Railways) in 2019, and both

these Presidents were very impressed with the new developments in the Area, particularly the HETA (Humberside Engineering Training Association) apprentice training centres and the large Siemens Gamesa wind turbine blade factory. Both visits concluded with well attended receptions hosted at the University of Hull where local engineers and students could meet the President.

Finally, a word for our Area Young Members who run their own short programme of events each year – they inevitably have a high turnover of members but they have been vibrant and enthusiastic over recent years and have helped at various STEM events, helped in delivering the UoH Formula Student Project each year and also in organising the local heats of the IMechE's annual "Speak Out for Engineering" competition.



Presidential Visit 2019 – Tony Roche tours HETA Apprentice Training Centre.



Young Members were involved in showcasing five Yorkshire University Formula Student cars at an Automobile Division event at UoH in 2019. Cars were from the Universities of Hull, Leeds, Sheffield, Sheffield Hallam, and Sunderland. A team from Bradford also gave a presentation about their car. Photo: Kris Kubiak.

**Alan Brattan** (Past Chairman of the Region and of the Eastern Area)

#### **South Yorkshire Area**

South Yorkshire Area Chairs have included:

Year	Chair
1968/70	<b>GP Vickers</b>
1970/71	AGM Dixon
1971/73	GD Ingham
1973/76	GC Twine
1976/78	MG Bennet
1978/85	FJR May
1985/88	LC Weedon
1988/92	Dr P Neal
1992/98	DE Eaton
1998/2000	JA Slater
2000/02	RB Donkin
2002/04	SJ Matthews
2004/06	P Hilton
2006/07	JB Orr MBE
2007/09	SM Shaw
2009/11	Dr PM Ingham
2011/13	S Wainwright
2013/15	E Draper
2015/17	Dr R Barthorpe
2017/19	L Farmer
2019 to date	J Fewings

The South Yorkshire Area has a rich and vibrant engineering past which is demonstrated by the wide range of Engineering Heritage Awards that have been presented to sites or artefacts within our area:

#### **River Don Engine**

(Kelham Island Museum) – 10th October 1985

Huntsman Crucible Furnace & Tilt Hammers (Abbeydale Industrial Hamlet) – 12<sup>th</sup> May 1988

#### **Wortley Top Forge**

(Wortley Top Forge Museum, Thurgoland) – 25th March 1994

#### First Prototype Cast Steel Node

(Sheffield Forgemasters, Brightside Lane) – 30th March 2000

#### Fluent CFD Software

(ANSYS, Sheffield Business Park) – 1st April 2002

#### The Bessemer Converter

(Kelham Island Museum) - 26th March 2004

#### The Bramah Hydraulic Press

(Kelham Island Museum) – 7th April 2005

#### **Vulcan Bomber XH558**

(Doncaster Sheffield Airport) - 27th October 2011

#### **Barrow Hill Roundhouse**

(Barrow Hill, Chesterfield) - 13th November 2018

Building on its past, South Yorkshire has become a central hub in the north of the country for engineering excellence. The Committee has been extremely fortunate to work with a range of establishments in the local area to support and promote engineering through technical visits, lectures, formal debates and educational events. Events have been arranged each year from September through until June and published on the IMechE "Near You" website page.

The Advanced Manufacturing Park (AMP) sits within the South Yorkshire Area and hosts several manufacturing/technology-related businesses, ranging from start-up ventures, spin-outs from the universities, to larger more established companies. Organisations at the AMP have worked with the Committee to host a range of exciting events, such as a technical lecture by the McLaren Composites Technology Centre. McLaren outlined the importance of their new manufacturing facility based in the AMP and how it forms part of McLaren Automotive's overall strategy.

The Area Committee is also privileged to work closely with both Sheffield Hallam University and The University of Sheffield, allowing unique and exciting technical visits to their associated research centres such as the Laboratory for Verification and Validation (part of the Dynamics Research Group, University of Sheffield), and the Engineering and Biomechanics Group (part of the Biomolecular Sciences Research Centre, Sheffield Hallam University).

The University of Sheffield Advanced Manufacturing Research Centre (AMRC) is a world-leading research and innovation centre based in the AMP. The AMRC collaborates with manufacturing companies of any size on short one-off projects or long-term projects involving advanced machining, manufacturing techniques and materials. Several events have been hosted at the AMRC including:

Technical lectures e.g. Composite Manufacturing: Digital Revolution –an introduction into the digital manufacturer's toolkit, including the use of Al based quality control systems.

Visit to Factory 2050 – the UK's first fully reconfigurable manufacturing facility - an inside look at the collaborative approach between industry and academia.

Plans are made for a technical visit to Nuclear AMRC which will include a presentation showcasing internal research and a tour of the state-of-the-art manufacturing workshop.

The South Yorkshire Panel Committee was formed in 1968. Current members of the Committee are drawn from a wide range of engineering backgrounds – both industrial and academic. The Area regularly holds events in conjunction with other professional engineering Institutions – the IET, ICE, IChemE, IStructE and SMEA which enables the Area to reach out to a larger audience. Two recent very successful joint events include an address by the Chair of the Sheffield City Region Local Enterprise Partnership, James Muir, who spoke about the strategic economic plan for the region, and a Celebration of the Women's Engineering Society (WES) Centenary Event – at which a number of highly acclaimed female engineers shared experiences from their own careers.

In February 2020, the South Yorkshire Area was honoured to welcome the 134th President of the IMechE – Professor Joe McGeough for a two day visit. During the visit, the President met with current members and prospective engineers. All were given an opportunity to ask the President questions about his career and professional experiences as well as the vision and objectives of the IMechE. The visit also offered an opportunity to showcase the work the Committee does to promote engineering within the local area.

Since 2012, the Yorkshire Region has routinely held its prestigious annual Dinner in Sheffield at the Cutlers' Hall – built in 1832 by Samuel Worth and Benjamin Broomhead Taylor. Usually the Master Cutler is invited to the Regional Dinner where the Institution President is the Principal Speaker,

but regrettably the COVID-19 pandemic meant that the event had to be postponed (eventually cancelled) in 2020. The South Yorkshire Area looks forward to when the Regional Dinner can once again take place in the area.

Presidential Visits in the South Yorkshire Region have often taken place at Rotherham based mechanical seal manufacturer AESSEAL.

Each President that has been in attendance to give their Presidential Address has taken the opportunity to get engineering at the forefront of the agenda as a career. A theme that AESSEAL takes very seriously. The Company frequently hosts events for schools, colleges and universities across the region to encourage more young people into the profession.

In addition to this, it also channels energy into the encouragement of women into engineering, which became a topic of much debate during one particular Presidential Address in 2018 with Carolyn Griffiths. During the exchange, Ms Griffiths said just 8% of UK engineers were women - a figure "that shames us all."

AESSEAL plc in conjunction with the IMechE supports Women in Engineering Programmes at the following universities; The University of Sheffield, Sheffield Hallam University and the Queens University, Belfast.

Chris Rea, Group Managing Director of AES Engineering Ltd was also made an Honorary Fellow of the IMechE following more than 40 years growing and developing the engineering business in the South Yorkshire area. Chris is one of just two Honorary Fellows of the IMechE in the Yorkshire Region. The other is Pamela Liversidge.



L to R: Stephen Shaw,
Group Engineering
Director AESSEAL
Engineering Ltd;
Carolyn Griffiths,
Non-executive Board
Member AESSEAL
Engineering Ltd
and past President
IMechE; and Chris Rea,
Managing Director
AESSEAL Engineering
Ltd. Business
Development Manager,
Denis Healy, looks on.

Jonathan Fewings (Chairman of the South Yorkshire Area)

## Huddersfield and Halifax Area, and Western Area

The Chairs of the Huddersfield and Halifax Area, and its successor the Western Area, have included the following:

#### **Huddersfield and Halifax Area**

Year	Chair	
1980	R Watson	
1985	E Gates	
1995	R Watson	
1996/98	E Gates	
2000	M Greenhalgh	

#### Western Area

2010/11	D Iddon
2012/17	K Ball
2018 to date	B Lawson

The Western Area of the Yorkshire Region is centred on the towns of Huddersfield and Halifax. The Area has a long history of engineering, initially supporting the textile industry manufacturing woollen goods. From this, developed the machine tool industry in Halifax, for example The Butler Machine Tool Company started by making the machines that treated and wove the wool. In Huddersfield, there were chemical firms such as ICI making chemicals to clean, treat and dye the wool. From these beginnings, industry grew in the Western Area and the IMechE has been supporting this industry for over 100 years. Other engineering companies that prospered in the Area included Holmes, Holset, David Brown Gears and Tractors, Hopkinsons valves, Thomas Broadbent, Rowntree Mackintosh and Brook Motors, along with other notable names.

In the late 1990s and the early part of this century, the Huddersfield/ Halifax Area Committee's activity was low, but in 2010 it was revived - Daniel Iddon, an engineer working for David Brown Gears was the inspiration. The new Area Committee included these engineers: Daniel Iddon (Chair), Ken Ball (Secretary), Ashley Kingston, Simon Tooley, Mike Dolton, Andy Roberts, Simon Barrans, Nathan Bailey, Nick Yeomans

and John Allport. These Committee members came mainly from David Brown Gears, Cummins, Kirklees College and the University of Huddersfield.

After Daniel Iddon moved out of the area, Ken Ball became Chair. At the time of writing, Brain Lawson is the Chairman, with Ken Ball as Vice-Chairman and Mike Dolton as Secretary. The Committee met in the Head of Steam Pub near Huddersfield Railway Station for several years, but more recently has met at the University of Huddersfield, thanks to the kind hospitality of the Turbocharger Research Institute.

From the new beginning, the Area Committee arranged meetings and events in co-operation with the Yorkshire Region Committee and Divisions. The events consisted mainly of talks on topics of interest and visits to factories and companies.

# Some of the visits included:

David Brown Gears, Huddersfield Cummins Turbo Technologies, Huddersfield Syngenta, pharmaceuticals, Huddersfield BASF, Bradford DePuy Synthes, Leeds Britvic Soft Drinks Fox's Biscuits, Batley

Nestle, Halifax Projex Solutions Ltd, Brighouse Sandal BMW's car showroom, Huddersfield

Longcroft Engineering, Todmorden Calderdale Industrial Museum, Halifax

Princes Food, Bradford

3M Buckley Innovation Centre at the University of Huddersfield

Some of the events and talks included: "Get Registered" evenings
How to write a CV and interview technique
"Intrapreneur"
Managing Smoke – the real killer in fires
Turbocharging the Future
Industrial Fluid Dynamics
Skills for Modern Engineering
Surfaces in Medical Engineering

#### **Presidential Visits:**

As the Region rotated the hosting of Presidential Visits around the Areas, the Western Area hosted two Presidents of the IMechE, although of course the Huddersfield/Halifax Area has also hosted its share of Presidential Visits. In 2013, the Area proudly welcomed Isobel Pollock, a past Chair of the Yorkshire Branch. She visited VTL Ltd in Huddersfield and Score Europe in Brighouse, then Kirklees College and finally attended an evening reception at the University of Huddersfield.



President Isobel Pollock on her visit to the University of Huddersfield in 2013.
L to R: Denis Healy, the IMechE's Business Development Manager for Yorkshire and the North East; Andrew Hamilton, Regional Chairman; Professor Bob Cryan, Vice-Chancellor of the University of Huddersfield; Isobel Pollock, IMechE President; and Ken Ball, Western Area Chairman.

In 2017, President Jon Hilton visited the Area. He visited Cummins Turbo Technologies, attended a session of the Secondary Engineer at Kirklees College, visited the Institute of Railway Research at the University of Huddersfield, and finished the day with an evening Dinner.



Jon Hilton meets students at the University of Huddersfield during his Presidential Visit to the Region in March 2017.

The Western Area Committee is pleased to acknowledge the cooperation of the University of Huddersfield. The Committee is also pleased to record its involvement with the Calderdale and Kirklees Manufacturing Association by supporting its school initiative of "Make it in Manufacturing", and the Committee also supports the work of the Calderdale Industrial Museum. The Committee works with the Yorkshire Regional Committee and works together with the Business Development Manager, Denis Healy. It is appropriate to recognise the contribution of the late Denis Bradley, who came from Huddersfield and worked at Holset Engineering Ltd, after previously being Secretary and then Chair of the Automobile Division Yorkshire Centre.

The Committee continues to be active and looks forward to continuing its programme of events and expanding its support of Young Members and making better use of social media. May its work expand over the next 100 years!

**Ken Ball** (Past Chairman of the Western Area)

## GRADUATES, GRADUATES AND STUDENTS, AND YOUNG MEMBERS

In Yorkshire, the Graduates, Graduates and Students, and Young Members Section have, over the years, provided a valuable service to local members. The Section is believed to have operated continuously, but finding a record of their officers has, however, not been straightforward. In many cases the officers are accurately known, but unfortunately sometimes the records are incomplete. The Committee has continued to operate effectively but sometimes without anyone wanting to be named as Chair. As such, the following details are not complete, but record many of the Chairs of the Graduates and Young Members Section:

Year	Chair
1931	AC Farran
1935	M Shaw
1936	HA Wainwright
1938/39	J Petty
1942	JL Hepworth
1943/44	JT Copeland
1945	SP McCullum
1950	H Bailey?
1955	GP Dawson?
1960	SB Fielding
1965	JJ Bass
1970	WR Ibberson
1970	L Green Chair, Hull Sub-Section
1977	J Hopkinson
1978/79	AW Crossland
1980	A Parkinson
1983	P Sands
1985	B Stott
1987	BE Purchon
1988	JP Dickinson

1990/94	Ms V Mortensson		
1995/96	SF Allen Hon Sec, Chairman unknown		
1997	D Hodgkins Hon Sec		
1998	Ms J Potter to June 1998		
Note:			
1981	The Graduates and Students Section became the Young Members Section		
1983	Leeds University Panel operating		
1984	Additionally, Sheffield University Panel operating		
1990	Minutes show that the Region has 9 Student Polytechnic/ University Panels		



Martin Haigh, a Project Engineer at Mintex Ltd, Cleckheaton, photographed second left after winning the first prize of £150 and a glass trophy in the North Midlands Young Members' Prize Competition that was held on 15 March 1982 at Holmfield House, Wakefield. His paper was entitled "Application of the finite element method to the analysis of deflection and stress in friction components". Peter Wheirs, a design engineer from Hopkinsons Ltd, Huddersfield, second right, won £50 second prize for his paper "The design of a high pressure valve actuator". Seen with them are other finalists, John Holbert, left, and Paul Mason, right. At the time, Holmfield House, Holmfield Park, Wakefield, was a regular venue for the Branch to hold its Committee Meetings, also for the Graduates and Students Committee Meetings, and for hosting various lecture events.

In that the local Panels had been formed to assist the Branch to bring events closer to the members, then too the Young Members' activities tended to move away from a central Committee towards Young Members Panels, being allied to and supported by their local Area Committee. This arrangement "evolved" over a few years, although it can be regarded as occurring around the time of the formation of the Yorkshire Region in 1998.

### **Young Members Chairs**

#### n/a (not active)

Year	Northern YM	Eastern YM	South YM	HH/West YM
1998	For the period	Sept – Dec 1988	Daniel Easter	Karen Morton
1999			Daniel Easter	Karen Morton
2000			Daniel Easter	Karen Morton
2001			Daniel Easter	Karen Morton
2002	Joa	Joanne Lewis – Area not listed		
2003	David Holberry; Joanne Lewis – Area not listed			
2005	James Stewart	n/a	Ms Anna Chan	n/a
2006			Chris Kurkowski	
2008	Steven Gowers	n/a	Sarah Tomlinson	n/a
2009	Louise Manfredi	n/a	Chris Harrop	n/a
2010	Kris Larsen	n/a	Rob Thornton	n/a
2011	Vincent White	n/a	Gavin Poyntz	n/a
2012	Greg de Boer	Brian Houston	Gavin Poyntz	Rachel Quayle
2013	Greg de Boer	Brian Houston	Tom Garwood	Rachel Quayle
2014	Christina Man	Brian Houston	Tom Garwood	Prashant Jog
2015	Ama Frimpong	Brian Houston	Raman Maiti	Prashant Jog
2016	Imran Asif	Adam Stephenson	Raman Maiti	Sarah-Jane Tonks
2017	Dinalie Karunaratne	Adam Stephenson	Christobel Gondwe	Sarah-Jane Tonks
2018	Dinalie Karunaratne	Joss O'Brien	Jodie Howlett	Jonathan Wilson (Acting)
2019	Dinalie Karunaratne	Joss O'Brien	Arti Mistry	Jonathan Wilson (Acting)
2020	Dinalie Karunaratne	Joss O'Brien	Arti Mistry	Julian Tomlinson (Acting)

## SENIOR MEMBERS – BRIAN FIRTH REMEMBERS

In and around 2000, Peter Harrison (the then Regional Chairman) invited me to help in re-forming the IMechE's Northern Area Committee with help and support promised by the Regional Committee. After just a few years, the Area had become firmly re-established and I would, in fact, takeover as its Chairman for a few years. I was supported by a splendid Committee which included Jim Douglas as the Area Hon Secretary, and indeed Mrs Charlie Baxter, who would later become the Region's Admin Officer and who was also a Committee member. Around the same time, I was elected the Deputy Regional Chairman of the IEE (Institution of Electrical Engineers) Northern Region. I was also Chairman locally of the Engineering Council Regional Organisation [ECRO], so I had little spare time. The IEE chief executives were also keen to have a Senior Members Committee in Yorkshire, and I was asked to investigate the potential. I reported back that I would take this on the year after when I was to be Regional Chairman of the IEE.

I organised a meeting in Leeds at the Mansion House, Roundhay, to discuss the possibility of forming a Senior Members Committee and over 80 engineers attended. I had the full support of the meeting and was invited to be the Chairman. I accepted and agreed to form a broad-based Committee comprising 10 members and an Honorary Secretary. Six of the Committee were, like myself, Fellows of the Institutions of IMechE and IEE, and this convinced me that it should be a joint IMechE/IEE Committee at some stage in the future. Incidentally, Rex Watson, a previous Regional Chairman of the IMechE was a member (and at the time of writing is still a member) of the Committee.

The new Committee set about planning meetings in the New Year. With my strong links to industry and business and a strong Committee, our events were very successful. So all concerned agreed that we should ask both Institutions to support a joint Committee, and this was agreed to by both Institution Presidents.

A good venue for our lectures was essential, and The Allerton (Old Golf House), Moortown, Leeds, provided us with a good room and excellent food at a reasonable cost. One of our major objectives was to encourage support from engineers who were new to the Region or were working part-time or had taken early retirement. We encouraged members of any age to attend and younger members always seemed to appreciate interacting with older engineers from all backgrounds. Meanwhile, after continuing to



L to R: Boxford Chairman Howard Barrett, MD Paul Barraclough, Senior Members Chairman Brian Firth and Ashley Crossland.

On 20 November 2012, a visit to Boxford, who manufacture machine tools, was followed by the presentation of the framed IMechE plaque.

re-build the Northern Area, I was able to relinquish being its Chairman and leave it in good hands and this allowed me to concentrate on chairing the Senior Members Committee.

As mentioned, much of the development and planning of Senior Member events could not have been possible without a great Committee and the help of the Region's Administrative Officer at the time - Jim Douglas, Charlie Baxter, and more recently of course, Nicky Baxter. Another development was that some years ago (2015), the local Institution of Civil Engineers (ICE) was attracted to the success and achievements of our joint Senior Members Committee. Since then, we have had a number of very successful meetings each year, planned together in Pontefract and York. Long may this cooperation between the various Institution members continue.

We have had many interesting visits and lectures over the years, and I would thank them all. What follows is just a selection:

The longest event, and longest in the planning was a full day technical visit to the Red Arrows home base. This visit took 18 months to finalise as it was to be unique for visitors to have a long period with the pilots and the technical staff covering briefing, the display, assessment, highlighting, planning, technology and skill. The visit was thoroughly enjoyed by all the 30 people who attended.

**Technical visits:** Sellafield, Cumbria; RAF Menwith Hill, Harrogate; Airbus, Wales; British Aerospace, Hull; Bentley Motors.

**Technical lectures:** Metal Box, Shipley; Siemens, York; AESSEAL, Rotherham; Swift Motorhomes, Hull; plus many more, but all most enjoyable and much appreciated.

Thanks to all who hosted a visit or gave a lecture, and to the membership for supporting these events.

**J Brian Firth** (Senior Members Chairman, 2006 to date)

## **EDUCATION**



UTC Sheffield students completing a design, make and test project as part of an IMechE enrichment day.

A good education offers opportunity to all the young people in the Region, particularly with employers, large and small, from various sectors such as aerospace, automotive, energy and processing, to name but a few.

Our future as a professional Engineering Institution is dependent upon the inspired and those with aspirations to change the world through engineering.

A century of the IMechE Yorkshire Region has demonstrated a rich engineering talent pool in the region is helping to fulfil this vision.

The Institution's Yorkshire members, past and present, have recognised the importance of being involved in educating our younger generation and this is achieved through a myriad of ways at all levels in the education system within the region.

Today, Regional members volunteer their time to support educational institutions, working within a framework delivered by STEM Learning, who has an office and the National STEM Centre located in York.

This relationship includes the registration of all IMechE members as STEM Ambassadors, but also fundamentally supports safeguarding requirements and a public liability insurance for events and activities undertaken by members.



Brownies completing a design, make and test project as part of an IMechE enrichment evening.

Members have been directly involved in supporting the nationally acclaimed Primary Engineers Initiative, helping with mentoring and judging primary school projects in the Kirklees and South Yorkshire areas.

The hugely successful national Big Bang Fair has a Yorkshire and Humber event, which members attend and support students with practical activities such as making and testing balloon cars, and providing career-guiding literature for students.

The South Yorkshire members have worked closely with The WorkWise Foundation in the Sheffield area and through sponsorship and attendance of the annual Get Up to Speed with STEM events, have helped visiting students understand how to improve employability by speaking directly with employers.

lan Crowston (Regional Education Officer)

## WOMEN IN ENGINEERING

The Region is pleased to have been actively involved in encouraging women to consider a career in engineering and has supported many initiatives to show young women what they can achieve.

The Region was keen to be involved with one important event in June 2019 where the South Yorkshire Area jointly with other Professional Engineering Institutions\* in South Yorkshire organised a "Celebration of 100 years of the Women's Engineering Society (WES)", which coincided with the International Women in Engineering Day. This prestigious event was held at the Cutlers' Hall, Sheffield, and attracted approximately 160 young women. The event was hosted by Samantha Hubbard, Systems Engineer, Urenco Group, and keynote speeches were presented by distinguished female engineers reflecting on their experiences and career paths.

The speakers included: Dr Kirsty Clode, Chair of WiME (Women into Manufacturing and Engineering); Dr Carolyn Griffiths, Immediate Past President IMechE; and Pam Liversidge OBE, Past President IMechE and Past Master Cutler. This was followed by a networking event where attendees met some of the Region's female engineers from a variety of levels, experiences and industries.



<sup>\*</sup> IMechE, IET, ICE, IChemE, IStructE, RAeS, IOM3 (SMEA), and WES.

## IN CONCLUSION

The Regional Committee has, over the century, tried to serve the interests of its local members and to deliver a comprehensive programme of lectures and other events, as well as representing the Region at Headquarters. In the last half century, arranging lectures and visits has relied heavily on the Area Committees and Young Members and would not have been as effective without the friendly collaboration between all the Committees that operate in the Region.

Regrettably, the emergence of the Coronavirus (COVID-19) pandemic in 2020 has put into jeopardy events planned to celebrate the Centenary of the Institution's Oldest Region. One intended event was to have the President visit the Region on a date to coincide as closely as possible with the date of the centenary in February 2021.

Terry Spall, a past Automobile Division Chairman, is the President for 2020. As this book goes to press, it is hoped that the President can celebrate the Region's centenary on-line with a virtual occasion. Other centenary events are being considered subject to the COVID-19 restrictions and we gratefully acknowledge HQ's support and enthusiasm in this.

So proudly in 2021, the Yorkshire Region has the honour to celebrate the centenary of being the Institution's very first Branch. Much has happened in 100 years, and many people have been involved, but space regrettably has not allowed everyone and everything to be recorded here. There should be no inferences made about those people and events that have or have not been mentioned. The Region has been shaped by all who have been involved and their contribution is gratefully recognised. Nevertheless, the author hopes that he has been able to do justice to the Region in the space available.

## ACKNOWLEDGEMENTS

It was an honour to be invited to write this book on behalf of the Yorkshire Region. Hence, I would like to thank the Yorkshire Region Committee for its help and enthusiasm for getting this book into print. Help and encouragement came from many sources, but I would particularly mention the following:

Thanks to Terry Spall, President, for writing the Foreword. Thanks to Luke Farmer, Regional Chairman, for writing the Introduction, and to those writing about their Areas: Mark Hesketh, Andrew Bromley, and Grahame Platt for the Northern Area; Alan Brattan for the Eastern Area; Jonathan Fewings for the South Yorkshire Area; Ken Ball, for the Western Area; J Brian Firth, for the Senior Members; and Ian Crowston, Regional Education Officer.

Thanks to Karyn French, Archivist at Headquarters, for helping me with early Council Minutes.

May I thank those who have helped supply illustrations. Finding suitable illustrations has been challenging in that no-one over the past 100 years has been collecting photos with this book in mind. Hence, I am particularly grateful to lan Crowston, Steve Earl, Dr Martin Haigh MBE, Patrick Kniveton, Dr Kris Kubiak, and the Huddersfield Examiner for providing illustrations.

I would also like to thank Nicky Baxter, and Professor Isobel Pollock-Hulf OBE, for corroborating various items of information mentioned in this book.

May I also give a special mention to the late James (Jim) L Douglas who was the Hon Secretary 1969/71, and subsequently became Regional Admin Officer 1998/2005. Jim Douglas gave me the 8-page A5 review "North Midlands Branch. A Review of the first fifty years. 1921-1971" which he had written when he was the Branch Hon Secretary. Jim gave me this to use when I wrote "Professional Automobile Engineering in Yorkshire: The Millennium" (2000), which was a short illustrated book of 40 A5 pages. Jim was also Admin Officer to the Automobile Division Yorkshire Centre at the time. My book was well received in Automobile Division circles, as was an earlier book that I had written to commemorate 50 years of the Automobile Division Yorkshire Centre (starting as the Institution of Automobile Engineers), which coincided with 150 years of the Institution itself - "Chartered Automobile Engineering in Yorkshire" (1997). Jim Douglas was very proud to be associated with the Institution and was one of its tireless supporters. Jim was elected to the Institution Council and served on the

Qualifications Board from 1984 to 1987 and on the Professional Affairs Board from 1985 to 1986. He served as IMechE representative on the local CEI, being its Treasurer from 1981 to 1989, then as representative on the Yorkshire and Humberside ECRO Committee serving as its Chairman from 1994 to 1995. Jim was also a Volunteer Visitor for Benfund. In 1997, Jim joined the Committee of the Benevolent Fund (Benfund), and although he retired from its Committee in 2002, he continued to be active as a Visitor. So when Jim gave me his review, was he hoping that he had sown the seeds of a Region Centenary Book? I'm sure Jim would be proud and pleased to see some elements of his Review get another airing here.

Beside Jim Douglas' Review, there is a considerable amount of new research presented in this book, and I have also referred to my short IMechE books "Chartered Automobile Engineering in Yorkshire" and "Professional Automobile Engineering in Yorkshire" for some illustrations and historical Branch and Regional information. I trust that there is something of interest for all.

Finally, I would like to thank Nicky Baxter, Alan Brattan and Luke Farmer for final editing and proof reading.



**Ashley W Crossland** 

## **APPENDIX**

#### Note 1: Committees from 1922 to 1927

At the 1922 AGM on 16 January 1922 at the YMCA, Albion Place, Leeds, Major FL Watson became the second Chairman of the Yorkshire Branch, with a Committee comprising Guy L Murray (Leeds) as the Hon Secretary, Messrs. Edgar Alcock MBE (Leeds), Duncan G Bailey OBE, Captain S Bramley Moore MC (Huddersfield), Professor GF Charnock (Bradford), Lt-Col Edwin Kitson Clark (Member of Council) (Leeds), F Clements, Professor WT David (Leeds), Sir Robert A Hadfield (Institution Vice-President) (Sheffield), Dr. WH Hadfield (Sheffield), J Rossiter Hoyle (Past Vice-President) (Sheffield), Samuel Moorhouse (Leeds) and GH Strong (Hull). The lecture after the AGM was organised by the Institution of Locomotive Engineers (Steel for Locomotive Purposes) and was given by Sir Henry Fowler, Immediate Past President of the Institution of Automobile Engineers, and who was to be IMechE President in 1927. In his Chairman's Address on 30 January 1922, Major Watson spoke about "Functions and Training of the Mechanical Engineer." About 67 members and visitors attended, including the President, Capt. H Riall Sankey. In the 1922 session, there were 11 lectures/visits, one of which was a joint Meeting with the Bradford Engineering Society which was not preceded by a Committee Meeting; and 10 Committee Meetings which otherwise still preceded a "General Meeting", of which the popular venues were the Philosophical Hall, Park Row, Leeds (5 held), and at the YMCA (4 held). The Branch expenditure in 1922 was £134/19/6, and the Institution proposed a funding formula for 1923 to limit the grant to each Branch to £75 for each Branch, plus 5 shillings per member, plus £30 for each Branch with a Graduates' Section. Incidentally, besides serving as Chairman in 1922, Major Watson also served as Branch Chairman in 1930/2. His Chairman's Address on 16 December 1930 was entitled "Obsolescence and Organisation", and his Address on 10 December 1931 was "Skill".

In that there was to be money available to fund the activities of a Graduates Section, in the autumn of 1922 the Branch conducted a referendum of the 45 graduates and students in the Yorkshire Branch, where only 15 replied in favour of the formation of a Graduates Section. Hence, a Graduates Section was not formed at that time.

In 1923, Fred Clements (Chesterfield) was elected as the Branch Chairman, and so members in this north Derbyshire town have a longstanding link to the Branch. Fred Clements had some distinguished members on his Committee:- Guy L Murray (Leeds) continued as the Hon Secretary, and

there was a Committee consisting of Messrs. Edgar Alcock MBE (Leeds), Captain S Bramley Moore MC (Huddersfield), Professor GF Charnock (Bradford), Lt-Col Edwin Kitson Clark (Member of Council) (Leeds), Professor WT David (Leeds), Sir Robert A Hadfield (Institution Vice-President) (Sheffield), Dr WH Hadfield (Sheffield), J Rossiter Hoyle (Past Vice-President) (Sheffield), Samuel Moorhouse (Leeds), GH Strong (Hull), and Major FL Watson MC (Leeds). The President, HS Hele-Shaw, attended the AGM which was held at Leeds University on 15 January 1923 and presented his address "Engineering Education". Approximately 86 attended. Fred Clements was to give his own address on 7 December 1923 – "Forces of nature in the Service of Man", when also the President Sir John Dewrance attended and addressed the Meeting. This session there were 8 Committee Meetings, and 10 General Meetings. Of all the venues used, 5 events were at the Philosophical Hall, 3 at Leeds University and none at the YMCA. (A visit to Davy Bros, Sheffield, followed by a lecture is counted as one event. Also, one lecture first presented in Sheffield was repeated the next day in Leeds.) The Branch expenditure for 1923 was £150/7/8.

At the AGM on 4 January 1924 at the Philosophical Hall, Professor GF Charnock took over as the Branch Chairman. There were nine Committee Meetings and 13 General Meetings held that session, with the Philosophical Hall again being the most popular venue (8 times) followed by Brown-Firths at Sheffield (3 times). Professor Charnock gave an address on 7 March 1924 "The commercial testing of materials of construction", and another address "Some fallacies concerning invention" on 12 December 1924, at which the President William H Patchell attended and who also addressed the Meeting. During the year, HW Swift took over as the Branch Honorary Secretary, and again the Branch tried to stimulate interest in a Graduates Section. The Branch expenditure for 1924 was £164/10/7.

At the AGM on 9 January 1925 at the Philosophical Hall, Professor GF Charnock was re-elected as the Branch Chairman. There were 9 Committee Meetings and 14 General Meetings held that session, with the Philosophical Hall again being the most popular venue (8 times) followed by Brown-Firths at Sheffield (3 times). Professor Charnock gave an address on 18 December 1925 on "The importance of close speed regulation in driving machinery" at which the President Sir Vincent Raven had been due to attend but who was not able to due to urgent Government business in India. His place as guest was taken by Brig. General Magnus Mowat (the Institution Secretary whose post would now be described as its CEO). Professor Charnock also reprised his address "Some fallacies concerning invention" in Sheffield on 22 April. Two joint meetings were held which are perhaps worthy of mention: on 11 July, Lt-Col and Mrs Kitson

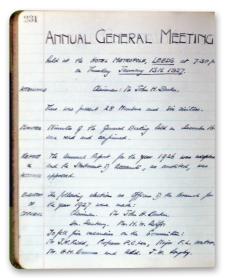
Clark hosted a garden party at their home "Meanwoodside", inviting Branch members along with members of the Institution of Civil Engineers and the Institution of Electrical Engineers. Over 250 people attended, of whom 98 were IMechE members and their friends; on 30 October a visit to the Stanton Ironworks in Nottingham was made jointly with the Midland Branch.

The earliest record of the Yorkshire Branch membership is believed to be that from 1 January 1925, when the membership was recorded as 621.

In 1926, John H Barker became Chairman at the AGM held at the Philosophical Hall, Leeds, on 15 January 1926. In that session there were 10 General Meetings and 7 Committee Meetings. Although the Branch had used the Philosophical Hall 3 times this session, the Hotel Metropole was to become a preferred choice for the venue of Leeds meetings and it was used 5 times this session – they served coffee after the General Meetings! The Branch had also been 3 times to Sheffield. In what was becoming a regular feature in the Branch calendar, the President, this particular year being William Reavell (accompanied this time by Brig. General Magnus Mowat), attended the last meeting of the session and officiated when the Branch Chairman John Barker delivered his address "Efficiency" at the Hotel Metropole on 16 December. A copy of Mr Barker's paper was also sent to every member of the Branch.

The 1927 AGM was held on 13 January 1927 at the Hotel Metropole Leeds, and John Barker continued as Branch Chairman, with one notable visit being made to the works of the Park Gate Iron and Steel Co. Ltd. of Rotherham at the kind invitation of Fred Clements. The visit commenced at 2.00pm and 77 attended, with tea served at 7.30pm.

The first Branch Chairman, Lt-Col Kitson Clark went on to become a President of the Institution (1931) and other early Presidents from our Branch were Professor Frederick C Lea (University of Sheffield) whose Presidential Address was "Remember the Past and Look to the Future" (1943), and Alfred Roebuck (1953, of Hadfields Ltd). Perhaps Mr Roebuck used his influence in getting the Institution Summer Outing to be held in Sheffield in 1953. One Branch Committee Member, John W Longley, became Lord Mayor of Bradford in 1932. In the extract from the Minute Book (see the photo on the next page), he is noted as Ald (Alderman) JW Longley.



Another page from the Minute Book. Ald.
JW Longley is mentioned last. The handwriting is presumed to be that of the Honorary Secretary, HW Swift.

#### Note 2: Graduates; Graduates and Students; and Young Members Section: some representative Committees over the decades

In 1938, the Graduates Committee was chaired by J Petty and his Committee comprised JT Copeland, D Garside, SG Haithwaite, JL Hepworth, AJ Hirst, R Kershaw, A Richardson, GE Sachs, KWB Sharp, E Sones and FW Staveley.

In 1945, the Graduates Committee was chaired by SP McCallum and his Committee comprised H Bailey, JT Copeland, JA Fuller, F Garthwaite, JF Hoyle, CM Joliffe, DV Learoyd and C Squire. (Note JT Copeland had been on the 1938 Committee.)

In 1965, the Graduates and Students Committee was chaired by JJ Bass and his Committee comprised G Barker, J Furby, F Hipson, R Jennings, M Joy, DA Moore, R Watson, PL Willmer, B Taylor and DAW Taylor.

In 1978, the Graduates and Students Committee was chaired by AW Crossland, with IS Spink being its Hon Secretary, and a Committee comprised of A Parkinson, R Anderson, S Birnie, JK Clayton, D Clugston, J Hopkinson, N Hutt, PE Patchett, B Robinson, K Skippings, A Walmsley and L Wickens.

In 1985, the Young Members Committee was chaired by B Stott, with HW Davies being its Hon. Secretary, and a Committee comprised of D Branham, R Busby, D Clow, I Moore, S Pathmarajah, B Purchon, J Reddish, W Redman and J Sanins.

In 1990, the Young Members Committee was chaired by Ms V Mortensson and her Committee comprised Mrs C Chapman, Misses J Holmes, R Nolan and S Stracey; Dr PJ Dickinson, Messrs D Dye, K Calaghan, S Duttaroy, M Farrell, D Goodman, R Green, L Mallinson, A Marson, S Moffat, S Moon, D Sampson, R Tuttle, P Tyler and P Yates.

1995, the Young Members Committee had SF Allen as its Hon. Secretary, and a Committee comprising of M Ambler, P Bell, Ms M Chapman, Ms C Corke, D Egglestone, S Fountain, D Hodgkins, N Jones, S May, Ms J Potter and Ms J Waddell. Representing the University Panels - Huddersfield: Ms KM Morton; Leeds: S Davison; Sheffield: A Bick, S Gilroy and Ms N Williamson; Sheffield Hallam: R Nightingale. The Eastern Panel operated with University Student Panel reps: Hull - A Paulls; and Humberside - N Waterhouse.

#### **Note 3: Yorkshire Region Boundary**

In 1921, the Yorkshire Branch comprised the County of Yorkshire, with a small extension to include the town of Chesterfield. However, in 1932, the Cleveland area of the North Riding of Yorkshire was transferred from the Yorkshire Branch to the recently created North Eastern Branch. The North Eastern Branch had 299 members, and thirty Yorkshire Branch members in the Cleveland area were transferred to them, leaving 654 members left in the Yorkshire Branch. Cleveland is an area north of Whitby stretching up to the River Tees.

In 1964, alterations were made to the Branch boundary, and as previously mentioned, the 1964 Branch boundary was complicated, particularly on its northern and southern boundaries. For members living in these areas it was necessary to refer to a map in order to determine in which Branch a member resided. Even so, locations on maps were occasionally subject to interpretation and thus a better arrangement was needed to avoid discrepancies. When the Regions were about to be implemented in 1998, the Yorkshire Branch proposed to its neighbouring Branches to define the local regional boundaries along the postcode lines which the Post Office had recently promoted. It was easy to get a consensus on this as the boundaries were equally complicated for the neighbours. (The Post Office abolished "postal counties" in 1996 in preference to using the postcode to identify the most efficient route to get mail to a destination even if it conflicted with traditional addresses.)

Therefore, in adopting the postcodes, the main Region changes relocated the towns of Northallerton and Sedbergh out of the Yorkshire Region but brought Whitby into the Region, and then in the south, addresses east of Chapel-en-le-Frith came into the Yorkshire Region (but not Chapel-en-le-Frith itself) and also Retford came into the Yorkshire Region. Along the western boundary there might be regarded as some small inconsistencies, and perhaps one to mention is that the West Yorkshire town of Todmorden (with its OL postcode) found itself outside the Region. Please see the maps which have been annotated with some of the towns mentioned. Note these maps are only for illustrative purposes and are not to be taken as definitive maps. The Post Office can alter, add and remove postcodes.

To be more precise about the Regional boundary of 1998, along the north, all the postcodes of Bradford, Harrogate and York are in the Yorkshire Region. In the south, all the Sheffield postcodes are in the Region. To the south-east, the Region includes Doncaster, but not all of the Doncaster postcodes. The postcodes of DN8, DN9, DN10 and DN22 are in the South Yorkshire Area of the Region. DN14 is in the Eastern Area. Because the Institution has a Southern Region, to avoid confusion, Yorkshire's southern Area is called the South Yorkshire Area. The Western Area at the time was called the Huddersfield/Halifax Area and comprised the postcodes of Huddersfield, Halifax and WF14, WF15, WF16 and BD19.

Incidentally, the Automobile Division Yorkshire Centre, whose boundary from 1985 had been conveniently identical to the Yorkshire Branch was not affected by the 1998 changes to the Region's boundaries, and so its existing boundary continued until 2020 when the Automobile Division then decided to use postcodes for its Centre boundaries.

The 2020 area covered by the Automobile Division Yorkshire Centre was, however, not exactly the same as that of the Yorkshire Region. The AD Yorkshire Centre's northern boundary was in places "north" of the Region's Northern Area and kept the postcode areas of DL6, 7, 8 and 9. This included Northallerton, which in this part of the county was a closer fit to the previous boundary defined as a straight line running east west slightly north of Scarborough and extending to include Sedburgh. The new AD boundary, however, did put Sedburgh (postcode LA10) in its North Western Centre. Elsewhere, the Automobile Division Yorkshire Centre followed the Regional boundary with the exception that it did not include DN22 (Retford), which again is more like its traditional boundary. DN22 became part of the Automobile Division East Midlands Centre.

#### This is the 2020 map:





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