



# WMG ACADEMY TRUST

# PROFESSOR LORD BHATTACHARYYA

Lord Kumar Bhattacharyya was an esteemed engineer who founded the Warwick Manufacturing Group (WMG) in 1980, an academic department at the University of Warwick. Today, WMG is an international leader in the provision of cutting edge research and expertise in engineering and technology to global businesses in high value manufacturing. He served as chairman of WMG until his passing in 2019. During his time at WMG, Lord Kumar Bhattacharyya founded both WMG Academies with the Coventry Academy opening in 2014 and the Solihull Academy opening in 2016.



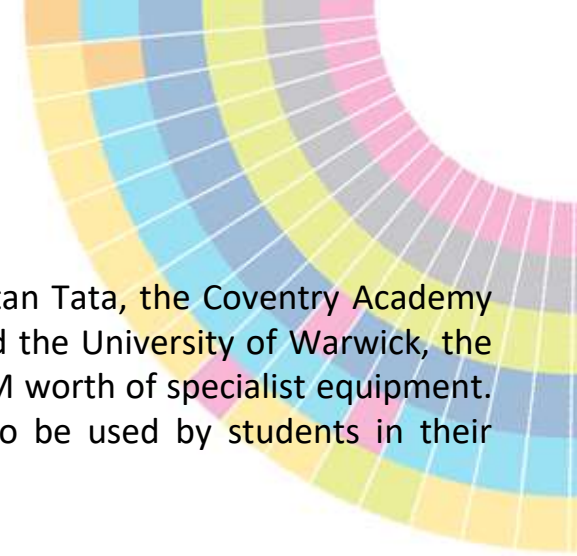
# OUR VISION

We will ensure that our learners have raised aspirations that provide the motivational drive to succeed. Strong employer and further and higher education links, as well as a professional ethos and culture, will ensure the learners will be in demand from employers. We aim to look beyond just qualifications and put destinations and employability skills at the forefront as our 'outcomes'.



# WMG ACADEMY COVENTRY

WMG Academy for Young Engineers Coventry opened in September 2014 by Ratan Tata, the Coventry Academy has over 450 students on roll. Located close to the Westwood area in Canley and the University of Warwick, the Coventry Academy was designed with a large Engineering Hall filled with over £1M worth of specialist equipment. Three additional dedicated CAD/CAM areas allow industry standard software to be used by students in their Engineering projects. WMG Academy Coventry is rated 'Good' by Ofsted in 2022.



# COVENTRY CURRICULUM KS4

In Key Stage 4 our curriculum is built around a core programme of learning with a focus on STEM subjects. Students will build a solid foundation of knowledge and skills leading to GCSE qualifications.

The curriculum will be designed to ensure that the majority of students take at least 8 qualifications, with exception made for those students for whom a smaller number is more appropriate. The core education programme will be delivered through themes, linked to the technical specialisms and to employer set challenge projects. ICT will be integrated through all learning within the Academy.

*The core curriculum is:*

GCSE Mathematics

GCSE English Language

GCSE English Literature (studied in Year 10)

GCSE Core and Additional Science (triple GCSE available)

PE, PSHE and RE are all non-examined

Cambridge National Engineering Manufacture

# COVENTRY CURRICULUM KS4

*In addition, students are able to choose either 2 or 3 choices such as:*

Art                                      Business Studies

Computer Science                      Geography

History                                      Product Design

Triple Science (converting Double Science to the three separate Sciences)

GCSE Electronics                      Cambridge National Engineering Design



# COVENTRY CURRICULUM KS5

In the Sixth Form we offer A-Levels, technical qualifications such as BTEC and OCR Cambridge Technical, or a combination of both.

Students in the Sixth Form will typically pick three A-Levels or the equivalent in size such as the L3 BTEC Engineering Extended Diploma. Alongside their chosen subjects, students will have the option of choosing an additional enrichment activity such as the Extended Project Qualification (EPQ).

*Subjects available to study in the Sixth Form include:*

A level - Biology, Chemistry, Physics, Maths, Further Maths, Computer Science, Product Design

Level 3 Cambridge Technical In Business (Extended Certificate), Level 3 Cambridge Technical Engineering (Extended Certificate), Level 3 BTEC Information Technology (Extended Certificate), Level 3 BTEC Applied Science (Extended Certificate/Diploma).

T Levels in Engineering piloted 23/24 with full 'rollout' 2024/25

# WMG ACADEMY SOLIHULL

WMG Academy for Young Engineers Solihull opened in September 2016, the Solihull Academy boasts over £2M of specialist equipment and ICT and currently has over 430 students on roll. Developed along a similar open plan design to Coventry, the Solihull Academy occupies a slightly bigger footprint. Dedicated ICT facilities include 3 CAD suites and student PC access in all teaching rooms giving unrivalled access to industry standard software. These facilities allow innovative teaching pedagogy through digital technologies. A large Engineering Hall, complemented by 'Make and Do' areas above, allows a flexible group-work approach to learning.





# SOLIHULL CURRICULUM KS4

*The core curriculum is: –*

GCSE Mathematics

GCSE English Literature

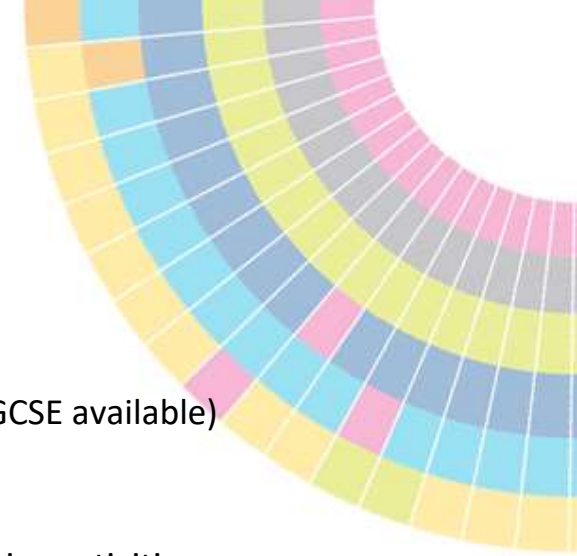
Cambridge National Engineering manufacture

GCSE English Language

GCSE Combined Science (triple GCSE available)

RSHE is non-examined

Enrichment which includes sporting activities



# SOLIHULL CURRICULUM KS4

As appropriate our specialist engineering qualifications are delivered through employer-led projects to ensure that students experience a real-world challenge, develop their engineering knowledge and practice their employability skills. All students study Cambridge National in Manufacturing

*In addition, students are able to choose either 2 or 3 choices such as:*

Triple Science (converting Double Science to the 3 separate Sciences)

Computer Science

Geography

Art and Design

Business Studies

Product Design

Graphics

Electronics

NCFE Creative iMedia

Cambridge National Engineering Design



# SOLIHULL CURRICULUM KS5

Key Stage 5 curriculum has a clear focus on the STEM subjects. Students can pick a mixture of A level and vocational qualifications as well as, for September 2024, a T level qualification.

The curriculum is designed to ensure that the majority of students take at least 3 qualifications or equivalent. The core education programme within the engineering qualifications will be delivered through themes, linked to the technical specialism and to employer set challenge projects. ICT will be integrated through all learning within the Academy.

*Subjects available are:*


A level - Maths, Biology, Physics, Chemistry, Product Design, Computer Science, Further Maths, English

BTEC Business, BTEC Business, BTEC Art, BTEC Engineering (double / single)

T level Engineering Manufacturing Processing and Control for 2024/25

EPQ – optional

We also encourage all Key Stage 5 students to take part in Enrichment project and competitions.



# EMPLOYER INTERACTIONS 2023/2024



**BOSCH**

ASTON MARTIN

**nationalgrid**



Howells



**TATA MOTORS**

**ATKINS**



**JLR**

**MORGAN  
SINDALL**

**JAGUAR**



# WHAT HAS TAKE PLACE SO FAR.....



**2023/2024**

Across Trust

**111**

company interactions  
(30 teaching weeks)

**71**

events per academy

**195+**

hours  
company interactions per academy

**2350+**

points of contact with  
students per academy

# EMPLOYER ENGAGEMENT 2023/2024 (AUTUMN)



## Induction week

All year 10 & 12s  
Rotated around  
company activities from  
Lear, Morgan Sindall,  
Akins, Tata, National  
Gas and Ramboll



## Glen Howells Architecture

Targeted KS5  
Students set a task to  
redesign a building based  
on a brief and present  
findings back.



## Envisage Site Tour

Targeted KS5  
Site tour of Envisage a  
bespoke engineering and  
design company to show  
jobs available in the  
industry



## AME Coventry University

Targeted KS5  
To show a hands on  
engineering course at  
Coventry University that  
works in partnership with  
Unipart



## Lauch National Gas Art competition

Targeted KS4  
Students set a task to  
create a artwork piece for  
the headquarters of  
National Gas

# EMPLOYER ENGAGEMENT 2023/2024 (AUTUMN)

TOMORROW'S ENGINEERS WEEK 2023



## Atkins Realis

Targeted KS4  
Ran 4 STEM workshops focusing on students design skills



## Deputy Synthes

Targeted KS5  
Students set a task to review, research, and develop proposal for a industry problem



## Bosch – Future Mobility Conference

Targeted KS5  
The students got to network with early career apprentices and engineers from across the automotive sector, from Aston Martin, Nissan and BOSCH.



## Esports Trip

Targeted KS4  
To give an insight into the careers in the Esports industry



## Trip to MGTS

Targeted KS4  
Students who are interested in apprenticeships



# EMPLOYER ENGAGEMENT 2023/2024 (SPRING)

## NATIONAL APPRENTICESHIP WEEK



### Project management

All CT IT Students  
Have a employer from Eon who came in to set a contextual challenge



### JLR Employability skills

Targeted Leavers  
Students set a task to redesign a building based on a brief and present findings back.



### Bosch Lego League

Targeted KS4  
Competition launched



### WMG Industry Day

Targeted KS4  
A careers fair with a difference! Interactive and informative.



### Severn Trent Trip

Targeted Leavers  
Students learn about apprenticeships on offer and employability skills

# EMPLOYER ENGAGEMENT 2023/2024 (SPRING)



## **WMG - flexible manufacturing**

Targeted KS5  
Support the students understanding of the Product design curriculum.



## **National Gas Art Competition Final**

Targeted KS4  
Students produced art based upon the National gases core values.



## **Aston Martin - Alumni**

Targeted KS5  
Apprenticeship insight guidance for the automotive industry



## **International Women conference**

Targeted KS4/KS5  
Female engineers, professional networking event, inspirational speakers from JLR.

# EMPLOYER ENGAGEMENT 2023/2024 (SUMMER)



## Amazon

Targeted KS5  
Support the students understanding of how robotics and engineering processes are used in distribution networks.



## The UK Battery Industrialisation Centre

Targeted all  
Students to expand understanding of the emerging electrification industry.



## NG Bailey Construction

Targeted all  
Students to expand understanding of how construction companies work in harmony with businesses to meet industry needs

# WHAT IS STILL TO COME.....

May/June	Coventry University Campus Visit
June	T-level Interviews - Envisage
June	Bank of England
June	Design and Make Challenge - Grove Design
July	Smallpeice Trust National Grid
June	Coventry University
July	Coventry University – Advanced Manufacturing visit
July	APC STEM - APC @ Warwick University
July	TCS Jaguar Racing - Formula E
July	TDI challenge Final - MAZAK



# UNIVERSITY DESTINATIONS

University destinations are STEM focused with popular courses including:

- Mechanical Engineering
- Aerospace Engineering
- Architectural Engineering
- Biomedical Science
- Pharmaceutical Science
- Robotics
- Cyber Security



# APPRENTICESHIP DESTINATIONS

On average 17% of our KS5 students secure apprenticeships at Level 4 and above.

nationalgrid **ATKINS** **AIRBUS**

ARUP



Ministry of Defence



ASTON MARTIN

**HS2**



# ALUMNI SUCCESS STORIES

# BEN JONES, MACHINIST, ADVANCED APPRENTICESHIP



Ben Jones, Year 13, aged 19, achieved Distinction\*, Distinction, Distinction in his Engineering Extended Diploma BTEC. He will be starting an apprenticeship with Rolls-Royce in September 2023 as a Machinist Engineer. Ben discovered this role after speaking with our alumni Scott Bevington, a current apprentice at Rolls-Royce who came in as part of Engineering Week.





# TYLER VAN, QUANTITY SURVEYING, DEGREE APPRENTICESHIP



Tyler Van, Year 13, aged 18, achieved Distinction, Merit, Merit in his Engineering Extended Diploma. He will begin his Degree Apprenticeship in Quantity Surveying in September 2023 with Cadent.

Tyler expanded his knowledge of the Engineering sector with an Insight Day at Arup as part of Engineering Week at WMG Academy.



# ALFIE BIJU, STUDYING MECHANICAL ENGINEERING AT COVENTRY UNIVERSITY



Alfie Biju, aged 18, achieved Distinction, Distinction, Merit in his Engineering Extended Diploma BTEC. Alfie will be studying Mechanical Engineering at Coventry University from September 2023.

At WMG Academy for Young Engineers, Alfie completed the Ready 4 Rail challenge led by Network Rail; completing a renovation of London Euston Station design and plan the High Speed Rail Route from Birmingham to London Euston. This opportunity boosted his Personal Statement to secure his first choice university and course.



# EMMA FORREST, STUDYING LAW AT ARDEN UNIVERSITY



Emma Forrest, aged 18, achieved Distinction in her Business Studies BTEC, Merit in Engineering Certificate BTEC and Pass in Art and Design BTEC, who is now going to start an exciting journey into Law.

In the Summer of 2022, Emma completed a placement with the Sutton Trust at Warwick University where she completed a Pathways of Law. Additionally, Emma was supported to secure a placement with the law firm, Squire Patton Boggs.

# LILY ROBINSON, DEGREE APPRENTICESHIP IN CIVIL ENGINEERING



"WMG Academy has provided me with opportunities that I never thought that I would have. The careers department gave me work experience options, a chance to meet people from the industry and helped me through what to expect in interviews and assessment centres, when I applied for apprenticeships. Now I'm doing a degree apprenticeship in Civil Engineering, and although it's a big change, I can't wait to see where this takes me."

Lily Robinson, Degree Apprenticeship in Civil Engineering with Arcadis (2023)

# WHERE WILL YOU GO AFTER COMPLETING SIXTH FORM?

Lucy Kedian,  
Public Health  
Engineer, Higher  
Apprenticeship



Where  
buildings  
come alive

---

Braiens Barvid,  
Computer  
Science



# WHERE WILL YOU GO AFTER COMPLETING SIXTH FORM?

Jack Pegg,  
Automotive  
Engineering



Oscar  
Hook-Evans,  
Hardware  
Engineer, Degree  
Apprenticeship



# WHERE WILL YOU GO AFTER COMPLETING SIXTH FORM?

Alfie Smith,  
Product Design  
Engineering



Cole Arrowsmith,  
Design  
Engineering,  
Higher  
Apprenticeship



# WHERE WILL YOU GO AFTER COMPLETING SIXTH FORM?

Haroon Ali,  
Civil  
Engineering



Christopher  
Gasior, Marine  
Engineering,  
Advanced  
Apprenticeship





# WHERE WILL YOU GO AFTER COMPLETING SIXTH FORM?

Lily Robinson, Civil  
Engineering,  
Degree  
Apprenticeship



---

Darragh  
Bamford,  
Biomedical  
Engineering





# CELEBRATING OUR ALUMNI!

# SAMUEL MUSSETT, STUDYING MECHANICAL ENGINEERING AT OXFORD BROOKES

As part of his Masters in Mechanical Engineering, Samuel Mussett has joined Alpine F1 as a Stress Intern for his industrial placement year for 2023.



# JESSICA OLIVER, STUDYING CONSTRUCTION MANAGEMENT AT COVENTRY UNIVERSITY

Jessica Oliver left WMG Academy in 2020 and is currently studying Construction Management at Coventry University. She was awarded the Lord Bhattacharyya Higher Education Bursary, a £15,000 bursary for students studying Engineering at university.



# SANA REHMAN, CIVIL ENGINEERING DEGREE APPRENTICESHIP AT ATKINSREALIS

Sana Rehman is a Civil Engineering Degree Apprentice working at AtkinsRealis from September 2022. Working for the Transportation sector and specialising within the Bridges and Civils team, Sana is also studying a Civil and Infrastructure Engineering BEng at The University of Warwick.



# RYAN HARPER, WILLIAM HUDSON, COREY JOHNSTON, ALFIE TIMMINS AND DYLAN WOOLGAR AT COUCH PERRY WILKES

All five students were successful in their Higher Apprenticeship applications to join CPW as Design Engineer apprentices in September 2022. They returned for National Apprenticeship Week in 2024 to inspire our future Engineers.



# OUR 2023 COHORT - APPRENTICESHIPS



Sonia Quaye

Studied Engineering,  
Electronics, Computer Science

BMW Aerospace Engineer



Jack Boyns

Studied Engineering,  
Maths, Physics

MOD Engineer – NOT TO  
BE PUT ON SOCIAL MEDIA!



Dylan Tatla

Studied BTEC Extended  
Diploma in Engineering

Leoni Engineer

# OUR 2023 COHORT - APPRENTICESHIPS



Kerry Opoku

BTEC Diploma in Engineering  
and Ctec in Business

Core Control Engineering Technician



Michelle Ncube

BTEC Diploma in  
Engineering and Ctec in  
Business

Derry Building Service  
Quantity Surveying



Matthew Bason

Studied BTEC Extended  
Diploma in Engineering

Mercedes Powertrain Test  
Engineer



# OUR 2023 COHORT - APPRENTICESHIPS



James Richmond

Studied BTEC Extended Diploma in Engineering

TGW Remote Site Technician



Joseph Rula

Studied BTEC Extended Diploma in Engineering

BAE – Explosives,  
Ordnance and Munitions  
Engineer



# OUR 2023 COHORT - APPRENTICESHIPS



Connor Langhorn

Studied BTEC Extended  
Diploma in Engineering

Aston Martin



Anna Skidmore

Studied Maths,  
Engineering and Physics

Aston Martin



Ajay Raichura

Studied Maths, Engineering  
and Computer Science

Aston Martin



Liam Page

Studied BTEC Extended  
Diploma in Engineering

Aston Martin

# OUR 2023 COHORT - APPRENTICESHIPS



Franco Vijoen

Studied Maths, Electronics  
and Physics

University of Brighton

Electrical and Electronic Engineering

**engineers**



Hadley Mulemba

Studied Maths, Chemistry  
Biology

Coventry University

Operating Department

Practice



Winter Hall

Studied BTEC Extended  
diploma in Science

Royal Vet College

Univeristy of London

Biological sciences

# OUR 2023 COHORT - APPRENTICESHIPS



Amy Cox

Studied Maths, Electronics, Physics

University of Warwick  
Physics and Astrophysics



Charlie Mos

Studied Maths, BTEC  
Extended diploma in  
Engineering

Swansea University  
Aerospace Engineering



Natasha Daniels

Product Design, Maths and  
Further maths

University of Brighton  
Civil with Environmental  
Engineering

# OUR 2023 COHORT - APPRENTICESHIPS



McKeith Calica

Studied Maths, Electronics,  
Computer science  
University of Brighton

Electrical and Electronic Engineering



Benjamin Read

Studied Maths, Electronics  
and Computer Science

Cardiff University  
Applied Software  
Engineering



Ecaterina Falinschi

Product Design, Maths and  
Physics

University of Brighton  
Structural and  
Architectural Engineering

# OUR 2023 COHORT - APPRENTICESHIPS



Chris Pittaway

Studied Engineering, Electronics  
Computer Science

Coventry University  
Games Technology



Agata Dziemba

Studied Maths, Electronics  
Physics

University of Warwick  
Engineering

