

## MORE CBUS COURSE

Here are the details for the More “CBUS” course which will take place in the “Goods Shed” meeting room at the Rushden Transport Museum & Railway, Rushden Station, Northamptonshire., over the weekend **23-25th April 2022.**

The pre-requisite for this course is that you have already attended the Introduction to CBUS course, or that you already have a good understanding of the basics of CBUS, building modules and getting them working.

**If you already have a booking for any previous course date which could not take place due to Covid, your booking will be honoured for any course, you do NOT need to book again. Please just let us know that you will be coming, so we can keep track of numbers.**

Arrivals are from 4pm on Friday afternoon 22<sup>nd</sup> April, the course will run to about 5pm on Sunday afternoon 24<sup>th</sup> April. For those who arrive on Friday evening, you will have a chance for informal discussions with the tutors, setting up, getting started on any practical kit building or projects you have brought with you, and getting the FCU CBUS configuration software installed on your PCs.

On each full course day, the venue will be open from about 8am for tea, coffee and bacon butties, with the course starting at 9am on each day.

We also have an optional follow-on practical workshop day on Monday 25<sup>th</sup> April. This will be a practical workshop day for you to apply the knowledge learnt over the weekend. You can work on whatever you wish, with assistance from the tutors, such as building and setting up CBUS modules.

Note that there will still be practical sessions during the main weekend, the all day Monday workshop is an additional option.

Your course tutors will be Pete Brownlow and Chris Noble. We will limit numbers to make sure everyone gets good value from the weekend.

The course will be a mix of theory and practical.

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## IMPORTANT!

### What we assume you already know:

- What CBUS is
- What it is for
- Concepts – Nodes, Producers, Consumers
- How to build a CBUS kit
- Wiring up power and CAN - terminations etc
- Connecting to computer using CANUSB
- Configuring using FliM with the FCU
- Teaching events using FCU

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If you are a complete beginner, this is not the course for you. Have a look instead at the introduction to CBUS course:

[https://www.merg.org.uk/merg\\_wiki/doku.php?id=public:cbus\\_intro\\_course](https://www.merg.org.uk/merg_wiki/doku.php?id=public:cbus_intro_course)

“**More CBUS**” takes you on from the basics to more advanced topics.

Topics covered will include:

- Recent Developments in CBUS – up to the minute “What’s New”
- Connecting to CBUS using Ethernet - the CANEther module
- Using the CANPi and CANPiWi modules
- More practice and setup in FliM using the FCU utility
- Understanding CBUS messages
- "Start of day" events
- Short vs long events
- Teaching producer events
- Turnout feedback - real and virtual
- Using FCU with generic dialogs
- The Universal CANMIO firmware:
  - Inputs/outputs and servos all on one board
  - Concepts
  - Limitations
  - Setting up with FCU
- Using CANMIO daughter boards
- Advanced conditional events and interlocking using CANCOMPUTE
- Changing settings in the MERG CANCMD using FCU
- Arduino modules for CBUS
- Introducing the JMRI node manager for CBUS

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The course fee will be £123, which includes lunch on Saturday and Sunday, as well as Bacon butties each morning, tea/coffee and biscuits with cake in the afternoon.

The fee for the Monday workshop day is £62, including morning butties and lunch etc as above.

To book your place, please fill in the enrolment form and email to [bookings@rmeuk.com](mailto:bookings@rmeuk.com)

## What to bring

If you already have some CBUS modules or projects, either already built or still in their kit bag, please bring them with you.

We will have a good selection of CBUS kits at the course for purchase during the weekend. If you know what you want in advance, to be sure of being able to get what you want, you may wish to order any kits you require in advance from the MERG kit locker.

Suggested tools for electronic kit assembly are as follows:

- Soldering iron (25-40W temperature controlled with interchangeable bits is best)
- Solder – Tin/Lead 60/40 resin cored, about 0.7mm or 22SWG size (note that lead free solder such as that sold by Maplin is much more difficult to use)
- Solder sucker and/or de-solder braid (for when you get it wrong!!)
- Small side cutters
- Wire strippers
- Small long nose pliers
- Tweezers
- Small screwdrivers
- Bendy Jig (available from the MERG kit locker in the tools section)
- Work light, such as an anglepoise or similar
- Optivisor or magnifier according to your preference
- Multimeter if you have one

and any other favourite tools you have for electronic construction.

We will make a lot of use of the FCU configuration program during this course. To get the most out of the course, you should bring a laptop with you. The FCU program requires Windows and will run on versions from Windows XP to Windows 10.

If you do not have one or two items on the list, don't panic because there is always the possibility of borrowing from the course tutors or other course members. If you are not sure about the tools you need to bring, please get in touch.

## The Course Venue

**The Goods Shed  
Rushden Station  
John Clark Way  
Rushden  
Northamptonshire  
NN10 0AW**

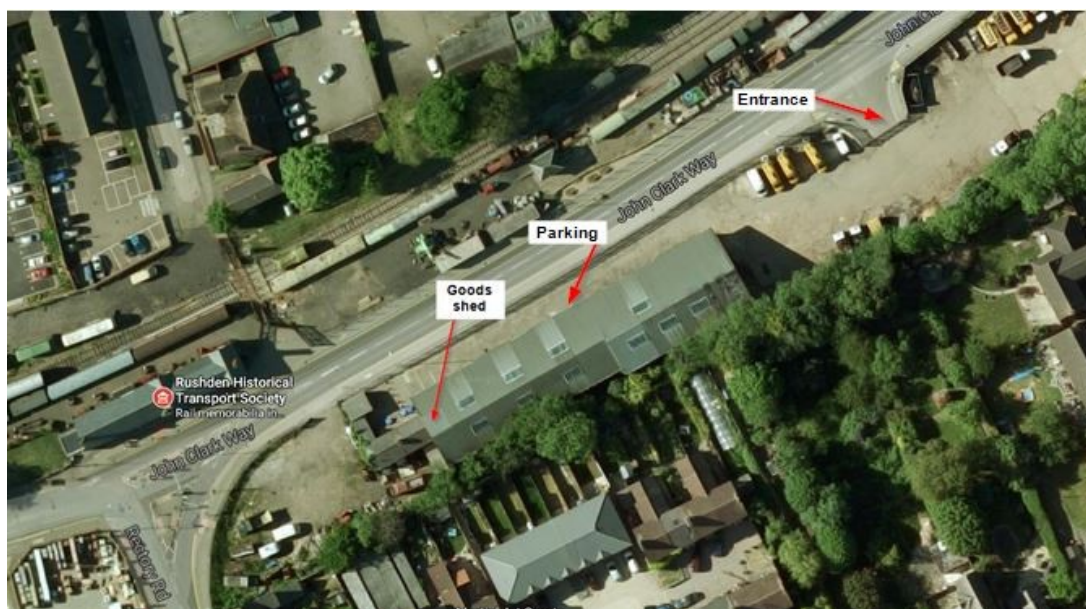
Rushden Historic Transport Society (RHTS) are based at the restored Rushden Station. They recently acquired the historic goods shed across the road, it having previously been in use as a council depot, which now forms part of the Rushden Transport Museum and Railway. See [www.rhts.co.uk](http://www.rhts.co.uk) for more information.



The pictures are from a recent “More CBUS” course at Rushden Transport Museum



Rushden Transport Museum is signposted from the A6 Rushden bypass and parking is available directly outside:



If you would like to come by train, the nearest main line railway station is Wellingborough. We can arrange to collect you from the station.

The course room is on the ground floor and has a ramp for step free access if required.

If you need more information about accessibility, please get in touch.

## Local Accommodation

The course fee does not include overnight accommodation so, unless you live locally enough to travel each day, you will need to book your own hotel.

Here is a list of some local hotels. This list is not exhaustive, and was compiled pre-Covid 19, so some things may have changed and the inclusion or not of a hotel on this list does not imply any particular recommendation or otherwise.

You can also try online booking websites such as trip advisor, laterooms.com, booking.com and trivago.co.uk. Recent course attendees have also had good results using airbnb.com.

### **The Stables @ The George Wilby, near Wellingborough**

**117 Main Rd,  
Wilby,  
Wellingborough  
NN8 2UB**

**Tel: 01933 270033 / 01933 715232**

**<https://www.facebook.com/TheGeorgeOfWilby/>**

About 6.5 miles from the course venue

### **Travelodge Wellingborough Rushden**

**A45 Eastbound,  
Rushden,  
Northamptonshire  
NN10 6AP**

**Tel: 08719 846115**

**[www.travelodge.co.uk](http://www.travelodge.co.uk)**

About 1.7 miles from the course venue, however please note that it is only accessible from the Eastbound carriageway of the A45, so when returning from the course, you have to travel a couple of miles on to the Wellingborough junction and then back again to get to it.

### **The Stanwick Hotel**

**West Street,  
Stanwick,  
NN9 6QY, United Kingdom**

**Tel: 01933 622233**

**[www.thestanwickhotel.co.uk](http://www.thestanwickhotel.co.uk)**

About 3.3 miles from the course venue

## **Redlands Farm Bed & Breakfast**

**Redlands Farm,  
West Street,  
Stanwick,  
NN9 6QZ**

**01933 355169**

**[www.redlandsenterprises.sc.ipage.com](http://www.redlandsenterprises.sc.ipage.com)**

About 4 miles from the course venue. We have received very good reports from those who stayed here for the last course at Rushden.

## **Premier Inn Wellingborough**

**London Road,  
Wellingborough,  
Northamptonshire  
NN8 2DP**

**Tel: 0871 527 9144**

**[www.premierinn.com](http://www.premierinn.com)**

About 4.6 miles from the course venue

## **The Hind Hotel**

**38 Sheep Street  
Wellingborough  
NN8 1BY**

**Tel: 01933 222827**

**[www.facebook.com/TheHindHotel](http://www.facebook.com/TheHindHotel)**

About 5.5 miles from the course venue

## **IBIS Wellingborough**

**Enstone Court  
Wellingborough  
NN8 2DR**

**Tel: 01933 228333**

**[www.ihg.com](http://www.ihg.com)**

About 5.8 miles from the course venue.

## **Millhouse Hotel**

**Mill Road,  
Sharnbrook,  
MK44 1NP**

**Tel: 01234 781678**

**[www.millhouse-riverside.co.uk/](http://www.millhouse-riverside.co.uk/)**

About 6 miles from the course venue