Application Form for MCIAT Professional Assessment

To apply for Chartered Membership you must meet one of the following criteria. Please specify:

- ☒ CIAT Accredited Honours or Masters degree and sufficient relevant evidence
- ☐ Related honours degree or equivalent and sufficient relevant evidence
- ☐ Other relevant academic qualifications or professional qualifications (e.g. Chartered Membership or equivalent of a related professional Institute) and/or sufficient relevant evidence

However, each application will be considered on an individual basis. Please contact membership@ciat.org.uk for further guidance in relation to your circumstances.

Sufficient relevant evidence is defined as: professional experience to demonstrate ability to function in your field of expertise, using the Professional Standards Framework and related skills stated in the Candidate Guidance notes against the core functions; designing, managing, practising and developing (self).

Sufficient relevant evidence will be determined by a CIAT Member Panel, which will review and assess your application. The CIAT Member Panel is moderated by appointed Moderators to ensure consistency.

You are required to:

- complete all sections of this application form;
- read a copy of the Institute's Code of Conduct;
- provide copies of academic and professional qualification/s attained;
- submit supporting evidence to corroborate your application and
- submit the appropriate payment (£325)

Before completing the application form, please ensure that you have read the Professional Standards Framework and the Candidate Guidance notes for Professional Assessment, which include the related skills statements. Failure to complete all sections of the form and/or to provide sufficient supporting information will result in a delay in the processing of your application. All applicants must comply with the Institute's Code of Conduct before any assessments can be undertaken. Once successfully assessed, the Institute will contact you in relation to the scheduling of your Professional Assessment Interview.

Section A: Personal details

Surname	
Forenames	
Date of birth	
Membership grade and number	Associate
Home address	
Email address	
Telephone number/s including mobile	

Section B: Progression mechanism

It is important that you select your **primary** area of practice/experience:			
❑	Design	☒	Specialist (BIM)
❑	Academic	❑	Research
❑	Other (please detail)		

Section C: Current employment/practice status

Job title	Head of Digital Construction
Description of current role, responsibilities and functions	I am responsible for all digital construction related aspects for a medium sized contractor, mainly building information modelling, project information management, digital construction personnel and new technologies that aid construction projects. (See Item 1.0 in Supporting Evidence) Manage overall strategy for BIM Complacency within the company with regards to 2016 industry standards (PAS and BS documents with the transition into ISO). Manage IT Systems & Hardware within the company Responsible for complying and revising the company BIM policy (See Item 5.01 in Supporting Evidence) Interrogate construction models to identify clashes between mechanical items and building structure/architecture (See Item 7.04 in supporting evidence) Create project BIM compliance reports to present to clients at monthly meetings (See Item 7.01 in supporting evidence) Interrogate client's Employer's Information Requirements (EIR) to produce project BIM Execution Plan (BEP) (See Folder 4.0 in supporting evidence) Extract key data from project models to produce material quantities which will facilitate costing of a project during the tender process Record and track installation process in order to then produce "As Installed" drawings for O&M manuals Undertake site visits to track progress and snag installations Provide support and training to company staff with regards to BIM software and processes (See Folder 6.0 in supporting evidence)

	Regularly explore new workflows and processes to increase and promote innovative working within the company (See Items 5.02 & 5.03 in supporting evidence) Present progress to client board teams showing progress and innovation on projects (See Folder 7.0 in supporting evidence) Undertake Project Information Manager role on all BIM Level 2 construction projects and lead our Integrated Project Team through design development and verification stages. (See Item 1.0 & Folder 4.0 in supporting evidence) I am the supervisor of our Knowledge Transfer Partnership student; they have the role of site BIM implementation co-ordinator on one of our projects (See folder 8.0 in supporting evidence) Chair project BIM meetings between design teams, sub-contractors and site team Present how the company uses digital construction to aid project delivery to schools and universities (See Item 3.06 in supporting Evidence)
Employer/practice name	**XXXX**
Employer/practice address	**XXXX**
Work telephone number	
Work email address	**XXXX**

Section D: Previous professional experience

Please provide details of **relevant** roles, responsibilities and functions performed in previous employment	**From**	**To**

BIM Manager - **XXXX** Ltd Manage overall strategy for BIM Complacency within the company with regards to 2016 industry standards (PAS1192 documents) Work with clients to transfer traditional 2D mechanical drawings such as Ventilation, Heating, Plumbing, Chilled Water and Mechanical Wiring into 3D models incorporating relevant COBie information Interrogate models identify clashes between mechanical items and building structure/architecture Extract key data from project models to produce material quantities with will facilitate costing of a project during the tender process Record and track installation process in order to then produce "As Installed" drawings for O&M manuals Undertake site visits to track progress and snag installations Provide support and training to company staff with regards to BIM software and processes Manage the administration of the company's internal network and systems, as well as advise on potential upgrades to hardware and software Creation of BIM Families for Manufacturer Clients Regularly explore new workflows and processes to increase and promote innovative working within the company Often seconded to other contractor teams to help with implementing the BIM process within their company Present progress to client board teams showing progress and innovation on projects Support and present CPD's in relation to our products and services	March 2016	September 2018
BIM Manager – **XXXX** Ltd Manage overall strategy for BIM compliancy within the company with regards to 2016 industry standards (PAS1192 documents) Work with clients to transfer traditional 2D mechanical drawings such as Ventilation, Heating, Plumbing, Chilled Water and Mechanical Wiring into 3D models incorporating relevant COBie information	July 2015	March 2016

Interrogate models identify clashes between mechanical items and building structure/architecture Extract key data from project models to produce material quantities with will facilitate costing of a project during the tender process Record and track installation process in order to then produce "As Installed" drawings for O&M manuals Undertake site visits to track progress and snag installations Provide support and training to company staff with regards to BIM software and processes Manage the administration of the company's internal network and systems, as well as advise on potential upgrades to hardware and software		
<u>Building Services Technician – XXXXX Ltd</u> Liaise with Electrical and Mechanical engineers to design systems for residential, education and public sectors. Help to integrate the philosophy of BIM into the company Use of drafting tools that include AutoCAD, Revit, Dialux and IES software Meet with clients to discuss brief as well as keeping them informed during each stage of the design. Use clash detection software such as Navisworks and Solibri Design mechanical installations including HVAC, Plumbing, Heating, Mechanical site services etc. Design electrical installations including Power, Data, Fire alarm, Lighting, etc Site visits to inspect ongoing works and defects. Use calculations to find required mechanical and electrical loads, while maintaining the standard of COBie. Design systems that have been implemented in several countries, including Malaysia, Qatar and The Netherlands. Survey sites and buildings	April 2013	July 2015

Section E: Qualifications

Academic qualification/s and levels, professional qualification/s or memberships and Continuing Professional Development (CPD) certification. Your evidence of CPD should relate to section G	Year of qualification
BIM Essentials Course – *BRE*	2019 (Currently Completing)
BIM Information Management Course - *BRE*	2019
BIM Manager Training Course (CPD recognised) – *Man & Machine*	2018
2:1 BSc (Hons) Architectural Technology & Management - *University of **XXX**,*	2012
Diploma in Industrial Studies - *University of **XXX***	2011
A Levels: Technology & Design – B, Art & Design – C, Maths – C - ***XXX** College, **XXX***	2008
Three Dimensional Computer aided design and Solid Modelling Level 3 – *City In Guilds*	2008
ICT and CAD in Construction and the Built Environment – Distinction – ***XXXX*** *Institute of Further Education*	2008
Two Dimensional Computer aided design Level 4 – *City In Guilds*	2007
Base Modules - *ECDL Foundation*	2007
GCSE's: Technology & Design – A, Spanish – A, Art & Design – B, Maths – B, RE – B, Science (Double Award) – B B, Geography – B, English – B, English Literature – C - **XXX** *College*	2006

Section F: - Stage 1 - Educational Standards

The educational experience and underpinning knowledge is based upon CIAT Accredited Honours and Masters Degrees and as such holders of these awards are exempt from this section as having achieved the necessary standard through study. However, those applicants who do not possess an Accredited award must demonstrate how their educational awards and/or experience satisfy the *Educational Standards (Stage 1) listed* ***within the Professional Standards Framework.***

The summary should specifically relate to the discipline of Architectural Technology and must consist of at least 3000 words but no more than 5000 words in total and provide references to any relevant supporting evidence that demonstrates your knowledge.

If you have a CIAT Accredited Honours or CIAT Masters degree you are exempt from this section.

EXEMPT

Section G – Stage 2: Practice Standards - Practice Assessment

The Practice Assessment process assesses the performance of practitioners that work across a range of functions and allows candidates applying for Chartered Membership to use their experience in their chosen field/s to demonstrate their capabilities.

Applicants must demonstrate their practice experience and directly correlate this to the four core areas listed in the Practice Standards (Stage 2) ***within the Professional Standards Framework.***

Please provide a summary of your practice experience, past or present, which specifically relates to the discipline of Architectural Technology and should consist of at least 1000 words but no more than 2000 words in total.

For each core four area you must describe how your experience demonstrates a comprehensive application of each area within your sphere/s of practice in Architectural Technology. The evidence must corroborate the information provided in this application and **demonstrate your professional experience. This evidence will be assessed prior to your Professional Assessment Interview by a Member Panel.**

Designing	While I am fully aware of the design process and each aspect that it entails, I am not currently responsible for any design in my current role. However, I act as the Project information manager on a number of projects, as part of this role I am tasked with compiling the different teams' Task Information Delivery Plans (TIDP) into a Master Information Delivery Plan (MIDP). This allows me to liaise with various members of our site team and identify the areas of design that are typically troublesome, I can then manage the design teams and get these items coordinated and signed off before any work commences on site, preventing delay and rework. Currently I am mostly involved in the ground-breaking £30m BIM level 2 project, **XXXX**, **XXXX**. This is a design and build contract where the contractor takes the responsibility of the design. This meant that I had to work closely with our team of architects, structural, civils and M&E engineers to take the tender design into a design that was ready for construction and ultimately received construction notice from the client and their design team. This project involved the demolition of the existing campus which had consisted of 5no separate buildings, these were to be replaced by one building consisting of 4no floor levels. The added complexity in this build was the amount of different inputs from the client side. Being an educational facility, each type of "school" had a different set of requirements, utilizing BIM level 2 on this project was seen as the best way of managing the construction. (See Item 6.05 in supporting evidence) Acting as the contractor in this project, the company and myself were brought into the team at RIBA Plan of Works stage 4. At this point in time planning permission had been granted and the external envelope of the building could not be altered. Using innovative software such as "Solibri" a colleague and myself were able to carry out model take offs and capture the number of cladding panels that were required for the project. We were then able to take this data and work out the amount of boards that would need to be purchased from the manufacturer. I came up with 2no of different design proposals for the panel layout that would eliminate the excess materials from the manufacturers' board by 10%. This created a significant saving for ourselves as well as environmental and sustainability benefits associated with this reduction in waste. I was commended by the company directors for being able to create such a saving so early in the project programme. (See Folder 9.0 in supporting evidence)

Managing	As Project Information Manager on the **XXXX** project, I play a key role in ensuring quality and compliance with the Employers Information Requirements (EIR) through the Integrated Supply Team's BIM Execution Plan (BEP). The BEP also contains a number of Appendices that clarify the methodology and acts as guides for all the different aspects of a BIM Level 2 project (See Folder 4.01 in supporting Evidence). I was able to compile this BEP along with the Project Information Manager that oversaw RIBA Plan of Works stage 3 and feedback from other organisations suggest that this is one of the most comprehensive BEP's in the UK let alone **XXXX**. Throughout the Pre-Construction Stages I worked alongside the appointed Design Manager to manage design information. This was managed through the Common Data Environment (CDE) which has now become an essential item in all projects that we now undertake, even if BIM is not required. As manager of the CDE I am tasked with making sure that all standards in accordance with the PAS and BS documents are adhered to, such as naming conventions and clash reports (see Folder 4.0 in supporting evidence). One of the key roles in any BIM level 2 project is the establishment and training of the CDE which will acts as an online document management system, Dalux. (See 6.05 in supporting evidence). I am also responsible for managing the data drops of information throughout the project. Through this process I had to develope and agree the master COBie templates and provide samples of work based on CPlx Supplier Assessments. Using the CDE I am able to manage: • Real Time Project Information linked to our GPS Robotic Station with Trimble Field; • Fully searchable Drawing Registers; • BIM Models – Review 3D Models via internet; • Secure data storage in line with PAS documents; • Tailored Project Workflows to define & agree processes for RFI's, Design Submissions, Early Warnings (EW), Compensation Events & progress tracking' • Fully Auditable / Streamlines Administration' • Central Project Directory; • Project Reporting. During the project I led our Virtual Reality end user assessments. It was during this process that we met with department heads to let them visualise workspaces. This highlighted several issues such as teaching blind spots and placement of specialist equipment in logical orders rather than as per concept design. In past projects including **XXXX** I have had to ensure BIM Level 2 compliance with the Employers Information Requirements (EIR). Working in collaboration with our Integrated Project Team, Supply Team, Design Manager and Target Cost Manager; I try to advocate a series of technical meetings to maximise Whole Life Value and be responsible for assessing our Supply Teams BIM competency, capability and infrastructures. (See Folder 7.0 in supporting evidence). I use my experience within "Navisworks" software to facilitate technical design co-ordination workshops including clash detection which is always carried out in accordance with the compliance strategy within the Employers Information Requirements (EIR). During the clash detection process, I am responsible for ensuring that clashes are approved by the Lead Designer until resolved. Clash reporting & workflows to resolve clashes are agreed in our BIM Execution Plan (BEP). I use

	Navisworks File Sets' (NWF) to manage clash detection allowing models to be subbed in & out without data loss associated to clash resolution. (See Item 7.04 in supporting evidence). The whole benefit of using BIM on a project is greater collaboration, this done through several processes for which I am responsible within the company; • CDEs: Used to collect, manage & share all project data. I set up, manage & police each CDE acting as information manager, providing full training for workflows & processes; • Existing Conditions: I use the 3D Point cloud of the existing conditions informing key design decisions; • Site Planning: BIM processes are used to analyse space & understand the complexity of space standards; • BIM Reviews: 3D models are used to validate multiple design aspects with full consideration of H&S; • 3D Design Coordination: Clash Detection to remove hard & soft field conflicts; • Design Performance Analysis: BIM optimised engineering methods based on design specs such as running energy simulations for energy efficient design • BREEAM: Models & data derived to evaluate BREEAM targets • Record Model: Asset Information Model (AIM)'s depicts an accurate representation of each facility • Maintenance Scheduling: Schedules created from embedded data to address the functionality & maintenance. Currently, I am the supervisor for our Knowledge Transfer Partnership (KTP) student who we employ in partnership with **XXXX.** Our student has the job title of "Site BIM Implementation Co-ordinator" and is assigned weekly duties by myself and a company director. During his employment I have trained him in all of the company's workflows and processes as well as our numerous pieces of software. Thanks to this training he acts a type of "BIM Soft landings" for the site team and our various subcontractors. Site personnel regularly visit him in the site office where he is able to get them the information that they require to do their job as well as train them in software that can interrogate federated models. Every two/three months I compile a report where I detail his current responsibilities, feedback from the company and upcoming tasks. This report is presented at a meeting with the Knowledge Transfer Partnership representative, the company director and the KTP's academic supervisor from **XXX**. (See Folder 8.0 in supporting Evidence) I have recently explored Drone capabilities in construction and felt that the company should purchase a drone to capture weekly progress around the sites. The directors of the company have given me their backing and the company now has its own drone and three fully qualified Civil Aviation Authority (CAA) Pilots. While I am not one of the drone operators, I am the accountable manager and I am responsible for preparing our pilots with the correct training and certification, upgrades to hardware and constantly investigate new ways of using our drone capabilities to help the construction of our projects.
Practising	My role within the company allows me to embrace new technologies and bring innovation to construction projects. The most innovative item which we are now embracing company wide is the use of the common data environment (CDE). This is an area where all project information is stored and is best described as one single source

	of the truth. I was tasked with exploring existing CDE's to see which would best suit our company going forward. My main objective for the CDE was that it could be accessible to all members of the team including site team members and therefore easy to use. Through my research I came across a Danish application called "Dalux" this app is accessible on desktop, phone and tablet, making it ideal for site use. I have now used this as the CDE for **XXX XXX** where team members can view the model, drawings and documents. I am also able to utilize augmented reality to check position of units, potential openings for services and demonstrate the finished product to the client while they are standing in the space. I also use the CDE for all aspects of quality control, covering aspects such as RFI's, health and safety reports, quality assurance, deviations and site inspection reports. These items are able to be created and captured within Dalux without having to use any other software. There is also a full audit trail for all of these items. (See Item 6.05 in supporting Evidence) We now have a close working relationship with Dalux and I have helped our company to become the first company in **XXXX** to use this software. I have represented **XXXX** at Dalux user conference day in **XXX** to provide feedback as well as receive information on the latest features. We have been providing feedback to Dalux in terms of new features, what we would like to see integrated, we are recognised as a digital construction partner and a leader in BIM within the construction industry. I have also created a number of "How to" documents that the company gives to all new users of our CDE and I have prepared a PowerPoint presentation that we give to all subcontractors at the start of a project using our CDE. (See Items 6.01, 6.02 & 6.03 in supporting Evidence) Another innovative product that I have found is an application named "Signonsite." A problem that we typically have on site is the bottleneck of people trying to sign into site and the time-consuming induction forms. This app allows the user to sign in automatically whenever they enter the site with their mobile phone. Meaning no paperwork and all the data is accessible for the headquarters. Induction forms are filled out on the phone and CSR cards are photographed. This way we can flag and identify if a user's card is about to expire. This is working really well so far and is eliminating a lot of paper as well as making all information easily retrievable. We are the first company to use this technology in Europe and are recognised as a digital construction partner with the company. (See Item 6.05 in supporting Evidence) We are currently investigating the use of laser scanners on site to capture existing structures during fit out projects and the capture of installed information to allow validation of installed items. This allows clients and the design team to inspect items without having to attend site while speeding up the whole process. By doing this throughout the project, issues can be identified early, relayed to the design team through Dalux and receive a solution within a day or so as opposed to two weeks typically on similar sized construction projects. I am being recognised as a key player in Digital Construction within **XXXX** recently I was invited to become a committee member the **XXX** CIC BIM Task Group. I have also guest lectured at **XXXX** to the second year BIM masters students and regularly work with students of the Architectural Technology and Management Course at **XXXX** I regularly have pupils from both universities with an interest in BIM coming to learn about all of the innovative solutions that myself and the company are pioneering. I have also been invited by CITB to give feedback on the new initiative of BIMcert, which is designed to

	give brief BIM understanding to the supply chain. (See Folder 3.0 in supporting evidence)
Developing (self)	I am a great believer in CPD and always look for new courses that would develop myself or my colleagues within the construction industry. The construction industry is constantly evolving, I feel that in order to keep up with modern practices I must continue to educate myself. I regularly attend all CPD events put on my regional CIAT committee and subscribe to many construction industry publications. (See Item 3.01 in supporting evidence) My role as head of digital construction within **XXXX** Ltd requires me to on top of everything in terms of BIM, asides from my education received from **XXX** University I have attended other educational institutes courses on BIM. I would also be keen to develop BIM and the current process; I feel that my best chance of influencing legislation is by attending these conferences and staying active in the **XXX** CIC BIM task group. I have a close connection with **XXXX** University and can see that they offer a masters in BIM this is something that I would like to look further into. I also love lecturing and feel that this could be a path that I might go down in the future also, maybe even look into a PHD and really give back to the industry. Currently I am attending the Building Research Establishment's (BRE) BIM – Information management course having recently completed the BIM essentials course. Last year I also completed Man and Machine's BIM manager training course which is recognised by CPD. I regularly sit down with the other members of the digital construction team to identify our weaknesses and explore ways of improving our knowledge rather than drafting in another person who can do the job short term. We also try to attend as many external seminars and lectures as possible to see what new techniques and technologies are being used in the construction industry. I am actively involved in CIAT, at regional level I am a committee member having been the co-founder and past chair of **XXX** (**XXX** network) and I always try to volunteer for task groups. I am currently the **XXXX** of CIAT's **XXX** group and love giving advice to struggling regions as well as learn from the thriving regions. I also represent **XXX** at the CIAT **XXXX** meetings and represent CIAT at RIBA events. (See Items 3.02 & 3.03 in supporting evidence) In the future, I would like to progress within CIAT, I feel that BIM is something that our institute should be grasping and put ourselves out there as the institute for BIM professionals. I see this area growing in the institute and I want to be right up there with the decision makers. I would like to advance within my own company and become a director in the next five years. Just the same as CIAT, I feel that digital construction and BIM is going to grow and grow, so exciting times are ahead.

SECTION H: Declaration of applicant

I submit this form and additional documentation as an accurate record in support of my application for election or re-election to Chartered Membership of the Chartered Institute of Architectural Technologists. I fully understand the requirements for membership as set out in the Code of Conduct. I agree to accept the decision of the Institute regarding my eligibility for election.

Any evidence of plagiarism will be classed as an automatic referral and any fees paid forfeited. It could also result in your file being passed to the Chief Executive and Honorary Secretary for further investigation under the Institute's Code of Conduct.

If elected to Chartered Membership, I will continue to abide by the rules and regulations specified in the Institute's Charter, Byelaws, Regulations* and Code of Conduct, and any other directive issued by CIAT. If you do not have a copy of these, please contact the Membership Department.

I will keep CIAT informed of any change in my circumstances in writing, which may affect my membership.

Prior to attending the interview any applicant in private practice as sole practitioner, partner, principal, director or LLP member, this includes advice/services to friends or family, paid or unpaid, full or part time, must obtain formal registration with the Institute by completing the Practice Profile Form for profile candidates, obtaining approval of their business stationery and providing evidence of current professional indemnity insurance showing expiry date.

Only applicable to Associate or Technician members:

☐ In compliance with the Institute's Code of Conduct I confirm that I am not offering architectural services or advice.

*Available from CIAT on request or from http://www.ciat.org.uk/en/the_institute/about-ciat/ciats-charter/

Signature of applicant: _____ Date: __14__/_05___/_2019_

Disclosure

All personal data will be held in keeping with General Data Protection Regulation principles. If you have any queries or requests then contact membership@ciat.org.uk. Our Privacy Policy can be viewed at ciat.org.uk/privacy-policy.html — **NB** You cannot elect to be excluded from CIAT related mailings (via mail or email).

Section I: Declaration of Referee

I am a current Chartered, Corporate or full member of CIAT or a construction related Institute and am willing to act as referee in support of this applicant, as I consider him/her to be suitable for election or re-election to Chartered Membership. The information on this form is, to the best of my knowledge and belief, correct. I am not related to the applicant.

Signature of referee: Date: / /

Name of referee:

Job title of referee:

Professional qualification/s of referee:

Email of referee:

Address of referee:

Checklist for applicants:

- ❑ all sections of the application form are complete
- ❑ enclosed copies of academic qualification(s) and/or professional qualification(s)
- ❑ x2 supporting evidence on a CD or USB memory stick
- ❑ enclosed the appropriate £325 fee (cheques can be made payable to CIAT)

Please return this form to:
Membership Department
Chartered Institute of Architectural Technologists
397 City Road
London
EC1V 1NH, UK

For any queries please contact the Membership Department
T. +44 (0)20 7278 2206 F. +44 (0)20 7837 3194 E. membership@ciat.org.uk W. www.ciat.org.uk

For internal use only

CIAT Representative	Decision	Date	Name and signature
Central Office	Checked and approved		
Member Panel	Refer/Defer/Pass		