

# Tyndall Early Career Researchers' Network



**2020**  
**Annual Report**

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# 1 EXECUTIVE SUMMARY

2020 has been a year like no other, and not only because of the COVID-19 virus. The Tyndall Early Career Researchers' Network (TEC-Net) was launched on February 14<sup>th</sup> 2020 as an internal young employees' association linked to the Young European Associated Researchers (YEAR), which Tyndall joined in 2019. TEC-Net supports Tyndall's 2025 strategic goals including our People and Culture Goal, our Impact Goal, our International Reach goal, and our Research Excellence Goal.

COVID-19, and the resulting working-from-home policy, could have represented an insurmountable obstacle for a network in its infancy, such as TEC-Net. However, the active engagement of all the board members drove our vision forward despite the new "virtual" reality we are currently living in.

In 2020, TEC-Net gave special attention to the interests of early career researchers, as shown by the programme of activities organised. Events ranged from technical talks (in the nanomaterials, electrochemistry, and biosensors areas), to COVID-19 related sessions, transition to industry and "A day in the life..." webinars, and a NI LabView technical course, involving both internal and well-known researchers in Europe as well as industry leaders in Ireland, Germany, and the United States. Moreover, TEC-Net and Peter Finnegan, Tyndall, New Ventures Manager collaborated to encourage entrepreneurship across the early career researchers. In summary, 13 events were organised by the network in 2020, with > 270 attendees overall and with no cost to Tyndall.

TEC-Net is committed to developing the careers of early stage researchers and to ensuring they have a strong presence in Tyndall. 2020 was a year of rapid growth for the new-born network where TEC-Net gained respect and recognition amongst researchers at Tyndall. We truly believe that 2021 holds the promise of further consolidating our impact within the institute and the research community.

**Salvatore Tedesco, Chair, Tyndall Early Career Researchers' Network**

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## 2 TEC-Net VISION AND MISSION

### 2.1 OVERVIEW

Tyndall Early Career Researchers' Network (TEC-Net) is a newly launched network established by early career researchers at Tyndall. It brings together early career researchers through a programme of events with the goal to provide opportunities for collaboration, networking, training and socialising.

TEC-Net is driven by a dedicated team of young researchers at Tyndall, who are working towards developing the most suitable opportunities to improve early career researchers' current skills and develop new expertise.

TEC-Net supports Tyndall's 2025 strategic goals including our People and Culture Goal to attract, nurture and enable future research leaders to fulfil their potential; our Impact Goal by building our talent pipeline; our International Reach goal by developing our global presence through thought leadership; and our Research Excellence Goal by providing opportunities for collaboration.

Tyndall is a member of the Young European Associated Researchers Network (YEAR). YEAR offers EU networking opportunities, social events, and training events focused on skills development initiatives applicable to a wide range of disciplines.

## 2.2 THE LAUNCH

TEC-Net launched on February 14<sup>th</sup> with a kick-off event (<https://www.tyndall.ie/news/tyndall-loves-early-career-researchers/>) and the first board meeting occurred on March 6<sup>th</sup>.



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## 2.3 OUR VISION

The vision of the Tyndall Early Career Researchers' Network (TEC-Net) encompasses three aspects:

- Enhancing both the research and business, potential and capabilities, of Tyndall early career researchers by increasing the exchanging of ideas internally and with European peers.
- By exchanging ideas internally and with European peers, our aim is to enhance the research capabilities and business potential of Tyndall early career researchers.
- By promoting internal and European training and collaborations, our aim is to enhance the research capabilities and business potential of Tyndall early career researchers.

## 2.4 OUR MISSION

Our Mission is to create opportunities to support the development of early career researchers in Tyndall by helping them to extend their professional network and gain new skills in a multi-disciplinary environment.

## 2.5 OUR GOALS

We have set nine goals to support our early career researchers:

- Retention of high-potential young researcher talent;
- Increase the number of young researchers becoming PIs (bolster career advancement);
- Provide support to researchers in developing key horizontal skills and cost-effective personal development;
- Increase collaborations between different departments;

- Identify local obstacles and barriers to success in STEM/academia for young researchers;
- Encourage young researchers to develop great ideas to ensure purposeful and deliberate career planning and development;
- Support the creation and expansion of young researchers' network internally and internationally;
- Represent young researcher's at senior management level ensuring the development of programs and policies beneficial for Tyndall;
- Play an active role to engage young researchers and provide them with support to break down isolation or under-representation.

## 3 REPORT 2020

### 3.1 SUMMARY OF ACTIVITIES

In 2019, Tyndall became a member of the YEAR network. TEC-Net was launched in 2020 to support early career researchers in the institute, which involved proactively organising technical talks and webinars. A graphical depiction of the events promoted by YEAR and TEC-Net in 2020 is shown below. A presentation of the YEAR events will be provided in the YEAR annual report 2020.

TEC-NET organised a series of technical talks provided by external well-known researchers, targeting an audience of early career researchers on technical or general aspects. The talks involved:

- Sandeep K. Vashist (Global IVD Director, Pictor Diagnostics Pvt. Ltd, Germany) with a talk on “COVID-19 diagnosis: Recent advances, pending concerns and need for improvements” (June 11);
- Rui Campos (University of Antwerp, Belgium) with a talk on “Electrochemistry a multitool box for (bio)sensor development” (July 8);
- Felismina T.C. Moreira (BioMark, Instituto Superior de Engenharia do Instituto Politécnico do Porto, Portugal) with a talk on “Biosensors with Protein-imprinted Materials” (July 29);
- Richard Palmer (Head of the Nanomaterials Lab in the College of Engineering, Swansea) with a talk on “Scaling-up Nanoparticle Beam Deposition for Green Synthesis of Advanced Materials” (September 9).

Moreover, given the relevance of the COVID-19 pandemic, an internal technical talk with Ray Burke was organized on June 24 “Ventilator Emergency Use Mask for COVID 19 crisis from concept to high volume delivery”.

TEC-Net also started another series on “Transition to Industry” with UCC HR with three talks delivered by Mary Kate O’Regan on “Planning for a career beyond academia –

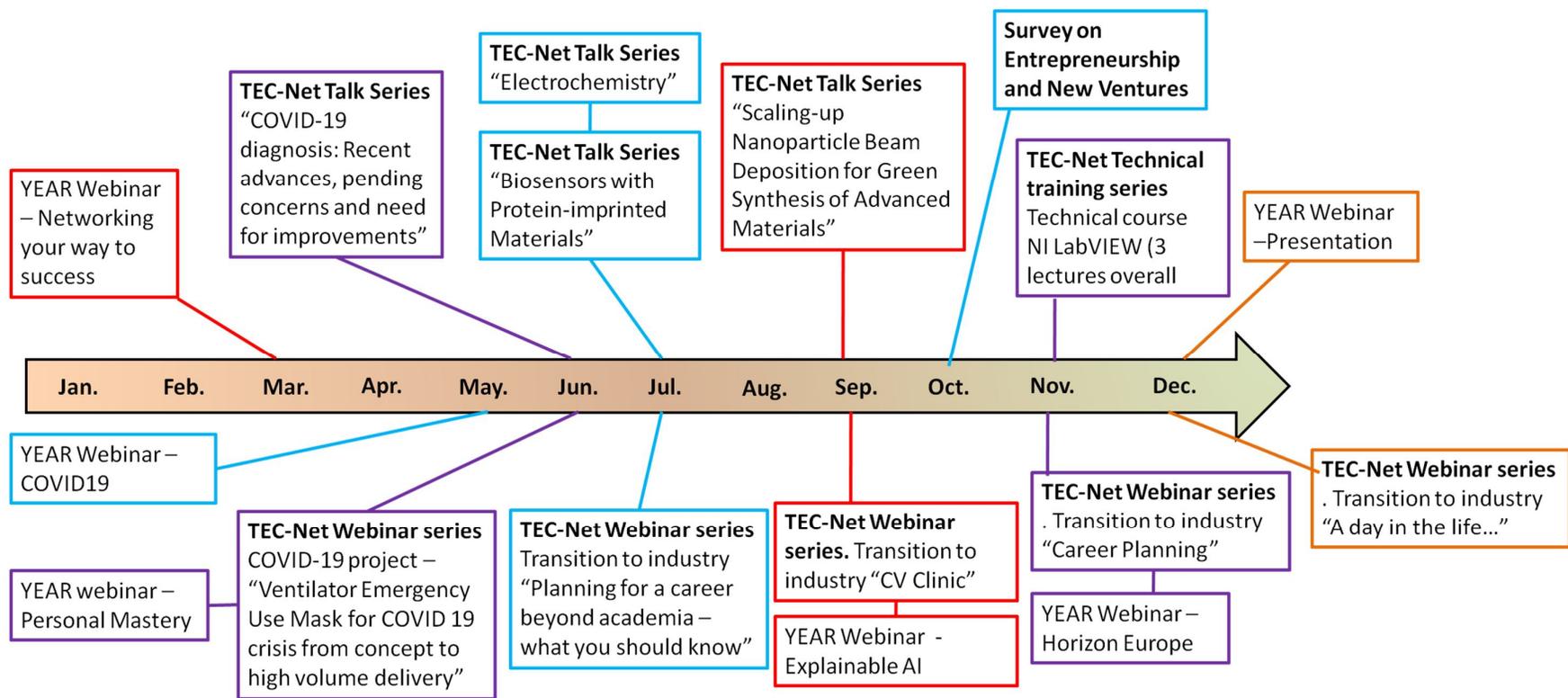
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what you should know" (July 14), "CV Clinic" (September 25), and "Career Planning" (November 25). In addition, a "A Day in the Life..." series was developed to better understand the life in industry from industry leaders in Ireland and the US. Talks were delivered by Jennifer Wrench (AMAT) on December 1, and Peter Gleeson (Intel) on December 18.

Finally, given the importance that technical tools have for researchers, a three lecture series NI LabVIEW course was delivered by Brendan Sheehan (Specialty Products and Services) in November.

Additional training provided by YEAR in 2020 focused on networking, personal mastery, presentation skills, Horizon Europe proposals, as well as technical talks on COVID-19 and explainable AI.

In summary, 13 events were organised by TEC-Net in 2020, with > 270 attendees overall and, more importantly, **without any cost on Tyndall (e.g. budget spent by Tyndall for the events was zero €)**.



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## 3.2 BOARD MEETINGS

Fourteen board meetings were organised in 2020, all of them virtually on Zoom except for the very first one. The main objectives of these meetings were to:

- Define the vision, mission and goals of the network;
- Define the main orientations and prepare the planned activities of the network;
- Define the topics, schedule and speakers of the upcoming trainings and webinars;
- Deliver a variety of training to meet the identified needs;
- Increase awareness of the network activities and their effectiveness through promotion, networking and collaboration;
- Increase opportunities for professional and personal development for early career researchers through the provision of activities;
- Seek opportunities to maintain and develop intra and inter-institute interactions and collaborations.

### 3.3 COOPERATIONS

#### 1. Working with Business Development

TEC-Net strongly engaged with the Business Development (BD) team in Tyndall. BD's role was essential in finding the speakers for the "A Day in the Life..." series. TEC-Net also engaged with Peter Finnegan, New Ventures Manager, to promote entrepreneurship in early career researchers in Tyndall. In 2020, a survey developed by Peter Finnegan on entrepreneurship and new ventures was promoted to the TEC-Net members with the aim of investigating how much knowledge on the services provided by Tyndall on those topics is currently available to the early career researchers.

#### 2. Working with HR (in Tyndall and UCC)

The board works with Tom O'Grady (Head of HR) to develop a long term training plan to support Tyndall's 2025 goals.

Internal trainings delivered from HR are promoted on a regular basis through the TEC-Net channels to increase the awareness of those opportunities.

Tec-Net also engaged with UCC HR for the delivery of the "Transition to Industry" series.

#### 3. Working with Marketing and Communications Team

The board actively engages with Tyndall's Marketing and Communications team to develop a consistent communication strategy aimed at increasing the awareness of the network across Tyndall.

#### 4. Working with Researchers in Tyndall

The board continuously aims to engage with researchers in Tyndall to deliver technical talks of special interest to the early career researchers in the organisation. In

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particular, we would like to acknowledge the contribution provided by Paul Galvin, Ray Burke, and Brendan Sheehan in 2020.

#### 5. Working with YEAR

YEAR is very important for TEC-Net. A direct link between the two networks is continuously enforced and TEC-Net provides the internal promotion of the events arranged by YEAR. To avoid duplication of efforts, TEC-Net aims at providing trainings which are complementary to the offerings provided by YEAR, with the goal to support early career researchers in the best possible way.

### 3.4 BRANDING AND COMMUNICATION

The TEC-Net webpage is available on Tyndall's website (<https://www.tyndall.ie/tyndall-early-career-researchers-network-tec-net>) and training events are published on Tyndall's intranet.

The name was agreed by the board and a visual identity was produced, including all the required assets, and templates, with the MarCom team.

Newsletters detailing, in a single source, the many trainings events available in UCC and internationally are circulated fortnightly through emails to all TEC-Net members. Event promotion also occurs via emails to all the members.

The communication strategy will be continuously updated according to the needs of the network. The main goals remain which are to improve the visibility and value of TEC-Net and support its growth.

### 3.5 DATA STORAGE

All the information and documents are shared between the board members, which are stored on Tyndall's servers.

All TEC-Net talks or webinars are hosted online, and some of them were recorded when agreed by the speakers. All the related links for retrieving the online events can

be found below:

1. TEC-Net technical talks
  - 1.1 Ventilator Emergency Use Mask for COVID 19 crisis from concept to high volume delivery  
<https://media.heanet.ie/page/94f13788453c42598256155143555c68>
  - 1.2 Electrochemistry a multitool box for (bio)sensor development  
<https://media.heanet.ie/page/06b473f6f51e4d6b84b29992ee21a15f>
  - 1.3 Biosensors with Protein-imprinted Materials  
<https://media.heanet.ie/page/79fcac1e57d0414a9f1552423b5e515f>
  - 1.4 Scaling-up Nanoparticle Beam Deposition for Green Synthesis of Advanced Materials  
<https://media.heanet.ie/page/ccfa2be5d8f64cb09d83abf5de268e83>
2. “Transition to Industry” Series
  - 2.1 Planning for a career beyond academia – what you should know  
<https://media.heanet.ie/page/cb5a3e5666774c6899c7cbf3fbb32cf5>
  - 2.2 CV Clinic  
<https://media.heanet.ie/page/9fff5a4ce11b4f768355ca43d2775962>
3. Training Courses
  - 3.1 TEC-Net Webinar Series: NI LabView  
<https://media.heanet.ie/page/c03768c70ba74db6b020103969854140>  
<https://media.heanet.ie/page/4e35260324614ce490465e7dd18444ca>  
<https://media.heanet.ie/page/761ff2e4e6854904b109fc821022adea>

4. TEC-Net "A Day in the Life..." Series

<https://media.heanet.ie/page/f342d8ed45624641b0d652429a5c6d31>

## 4 EXECUTIVE BOARD

### 4.1 COMPOSITION OF THE BOARD

In 2020, the TEC-Net Board was composed as below:

	Salvatore Tedesco (MNS (Circuits and Systems)) Chair		Walter Messina (Photonics / BioPhotonics) Vice Chair		Sofia Teixeira (MNS / ICT 4 Life) Vice Chair
	Guannan Wei (MNS / Magnetics on silicon) Secretary		Andrea Pacheco (Photonics / BioPhotonics) External Relations		Nadeem Rather ( MNS / WSN ) Communications
	Yashdeep Yashdeep ( MSN / ICT 4EE ) Communications		Louise McGrath (MNS / Electrochemical Materials and Energy) Event Coordination		Melusine Pigeon (MNS / WSN ) Event Coordination
	Alessandra La Rocca (MNS / WSN) Event Coordination		Enrica Mura ( Photonics / Epitaxy and physic of nanostructures) Member		Francesco Floris ( Photonics / Photonics Packaging) Member
	Hamed Jafarzadeh (MNS / WSN ) Member		Han Shao ( MNS / Nanotechnology) Member		Ivan-Lazar Bundalo ( Photonics / Photonics Packaging) Member
	Karen Mould ( IERC) Member		Natalia Canasestrada (Photonics / Photonics Systems) Member		Padraic Morrissey (Photonics / Photonics Packaging) Member
	Richard Murray ( MNS / Nanotechnology) Member		Ruchi Agrawal ( IERC) Member		Sana Konugolu ( Photonics / Biophotonics) Member
	Souvik Kundu ( MNS / WSN) Member		Stephen Murphy – (Photonics / Photonics Systems) Member		Tarun Narayan ( MNS /Materials and Devices) Member

## 4.2 CONTACT DETAILS



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## 5 BECOME A MEMBER

### 5.1 WHO CAN BECOME A MEMBER

TEC-Net is designed for the early stage career researcher community in Tyndall. All research assistants, research engineers, students, interns, postdocs, and researchers in Tyndall who meet the early stage career requirements, **are automatically considered members of the network.**

### 5.2 WHY ATTEND THE EVENTS OF THE NETWORK

Benefits for early career researchers:

- Support and advice for early career researchers
- Tailored training
- Organised events offering networking and social opportunities

### 5.3 HOW TO BECOME A BOARD MEMBER

If you are interested in becoming member of the board, supporting the proposal and organisation of new events, please email "[salvatore.tedesco@tyndall.ie](mailto:salvatore.tedesco@tyndall.ie)" .

