TC ANNUAL REPORTING FORM

IMS Technical Committee

TC- NONDESTRUCTIVE EVALUATION AND INDUSTRIAL INSPECTION (NDE&II)

Reporting period

Starting date (dd/mm/yy)	Ending date (dd/mm/yy)	Date of submission (dd/mm/yy)
01/01/2025	12/31/2025	01/31/2026

Website https://ieee-ims.org/technical-committee/tc-01 **Last update (mm/yy)** 11/23

TC Chair or co-Chairs

First Name	Second Name	Family Name	Affiliation /Address	Membership number	Phone	e-mail address	Date of election
James	A.	Smith	Retired Idaho Fall, Id 83402 USA		1-208-590-0749	James.Smith@INL.gov	11/2022
Helena	Geirinhas	Ramos	Instituto Superior Técnico (IST), University of Lisbon /Av. Rovisco Pais,1 1049-001 Lisboa Portugal		+351914155030	hgramos@ist.utl.pt	May 2018

Secretary (check the right box) **Present** ☐ **Not Present** X

* Please add as many rows as needed

First Name	Second Name	Family Name	Affiliation /Address	Membership number	Phone	e-mail address	Date of election

TC Membership list(*)

1st Name	Family Name	Affiliation	Nationality	email address	Interests
Amitava	Mitra	National Metallurgical Laboratory	India	amitra@nmlindia.org	Advanced Electromagnetic technique, System development
Anastasios	Skarlatos	CEA LIST	France	anastasios.skarlatos@cea.fr	eddy-current, material characterization, Barkhausen noise, modelling
Andrea	Cataldo	University of Salento - Dept. Engineering for Innovation	Italy	andrea.cataldo@unisalento.it	microwaves, time domain reflectometry, frequency domain reflectometry, measurement systems development, dielectric characterization
Ankit	Vajpayee	ASNT, BINDT, CINDE, RSNDT, ACOSEND, Russell Group, PICA		avajpayee@russelltech.com	ECT, remote field technique (RFT), MFL and other (EM) techniques.
Anton	Duca	Politehnica University of Bucharest, EED	Romania	anton.duca@gmail.com	Inverse Problems, Optimization, HPC
Antonello	Tamburrino		Italy	tamburrino@unicas.it	EC, microwaves, modeling, system development, electrical resistance/impedance tomography, electromagnetic tomography
Antonello	Tamburrino	Michigan State University	USA	tamburr1@msu.edu	EC, microwaves, modeling, system development, electrical resistance/impedance tomography, electromagnetic tomography
Antonio	Bruno	Pontificia Universidade Catolica do Rio de Janeiro	Brazil	acbruno@puc-rio.br	Magnetic Flux Leakage, Finite Element Modeling, Instrumentation.
Artur	Ribeiro	Instituto Superior Técnico	Portugal	arturlr@ist.utl.pt	
Bin	Gao	University of Electronic Science and Technology of China	China	bingao831210@gmail.com	thermogaphy, eddy current, ultrasound, system development, signal processing
Bo	Feng	Instituto Superior Técnico	Portugal	bofeng@tecnico.ulisboa.pt	guided ultrasonic wave testing; eddy current testing; magnetic flux leakage testing
Cesar	Camerini	Federal University of Rio de Janeiro	Brazil	cgcamerini@metalmat.ufrj.br	Eddy Current Testing, Electromagnetic Testing and System Development.
Chandra	Angani	Dept. of Electr and Physics, GITAM Deemed to be University	India	angani.cs@gmail.com	Eddy Current Testing, System development, Sensor Development, Magnetic Flux Leakage
Christophe	Reboud	Non Destructive Testing Department, CEA LIST Institute	France	Christophe.REBOUD@cea.fr	eddy current, Xray, computed tomography, material characterization, signal processing, simulation, machine learning, diagnostic
Clara Johanna	Pacheco	Federal University of Rio de Janeiro	Brazil	cjpacheco@metalmat.ufrj.br	eddy current, system development, advanced sensors, materials characterization, monitoring of mechanical structures.
Dagmar	Faktorová	University of Zilina	Slovak Republic	dagmar.faktorova@fel.uniza.sk	microwaves, eddy current, modeling
Dario	Pasadas	Instituto Superior Técnico	Portugal	dariopasadas1@gmail.com	
David	Forsyth	TRI/Austin	USA	dforsyth@tri-austin.com	
David	Pommerenke	Missouri University of Science & Technology (S&T)	USA	davidjp@mst.edu	
Diogo Elói	Aguiam	International Iberian Nanotechnology Laboratory	Portugal	diogo.aguiam@tecnico.ulisboa.pt	eddy current, RF, microwaves, modeling, system development, signal processing, microscopy, optical, nanofabrication,

* Please add as many rows as needed

					nanoinspection, nanoimprint, online monitoring, real-time inspection
Dominik	Kukla	Institut of fundamental Technological Resarch	Poland	dkukla@ippt.gov.pl	tube inspection(ECT, RFT, NFT),thickness and hardness of layers with EC, early identification and location of damage and fatigue based on EC, and optical technique, like DIC and ESPI
Donnel	Kristen	Missouri University of Science & Technology (S&T)	USA	kmdgfd@mst.edu	
Fei	Du	Xiamen University	China	dufei01100@sina.com	
Gerd	Dobman	Fraunhofer Institute for Nondestructive Testing IZFP	Germany	Gerd.Dobmann@t-online.de	eddy current, ultrasound, microwaves, radiography, modeling, system development for defect-detection and -sizing, materials characterization and stress-analysis
Grzegorz	Psuj	University of Technology, Szczecin	Poland	gpsuj@zut.edu.pl	electromagnetic NDT, stress and fatigue evaluation, MFL, data mining and fusion algorithms for the need of multi-source NDT inspection systems
Guglielmo	Rubinacci	Universita' degli Studi di Napoli Federico II	Italy	rubinacci@unina.it	Electromagnetic Non Destructive Evaluation and Testing, mainly Magneto-quasi stationary techniques and applications
Guiyun	Tian	University of Newcastle	UK	g.y.tian@newcastle.ac.uk	
Guiyun	Tian	University of Newcastle	UK	g.y.tian@ncl.ac.uk	
Helena	Ramos	Instituto Superior Técnico	Portugal	hgramos@ist.utl.pt	
Henning	Heuer	Fraunhofer IKTS and Technische Universität Dresden	Germany	Henning.Heuer@ikts-md.fraunhofer.de	EC, ultrasound, microwaves, radiography, system development, robotic, datafusion
Ilham Mukriz	Zainal	Malaysian Nuclear Agency	Malaysia	mukriz@nuclearmalaysia.gov.my	EC, eddy current thermography, pulsed eddy current, modeling, electromagnetic
Imad	Al-Qadi	University of Illinois at Urbana-Champaign,	USA	alqadi@uiuc.edu	ground penetrating radar
James	Smith	Idaho National Laboratory / BEA	USA	James.Smith@INL.Gov	Waves: Optical, ultrasonic, Electromagnetic, RFID
Jinyi	Lee	Dept. of Electronic Engineering, CHOSUN UNIVERSITY	Korea	jinyilee@chosun.ac.kr	System Development of Eddy Current, Magnetic Flux Leakage, Magnetic Camera, Magneto-Optical Method and Laser Displacement], [Application in Nuclear Power Plant, Automobile, Aerospace, Military and Steel Manufacturing]
Jose Luis	Lanzagorta	Ik4-Ideko	Spain	jllanzagorta@ideko.es	EC, Ultrasound, Thermography, Magnetic Particle Inspection, automation, X-Ray diffraction, modeling
José Pedro	Sousa	ISQ	Portugal	jpsousa@isq.pt	eddy current, ultrasound, radiography, development of inspection systems, automated inspections
Kiyoshi	Koyama	Nihon University	Japan	koyama.kiyoshi@nihon-u.ac.jp	ECT
Klara	Capova	University of Žilina	Slovakia	Klara.capova@fel.uniza.sk	
Ladislav	Janousek	KTEBI	Slovakia	ladislav.janousek@fel.uniza.sk	eddy current, electromagnetic methods, modelling, inverse problems
Lalita	Udpa	Michigan State University	USA	udpal@egr.msu.edu	
Lindberg	Gonçalves	Federal University of Ceara	Brazil	lindberg@fisica.ufc.br	Pattern recognition techniques applied to nde testing and also modeling in ultrasound
Luigi	Ferrigno	Università degli Studi di Cassino e del Lazio Meridionale	Italy	ferrigno@unicas.it	eddy current and ultrasound
Lukasz Jacek	Pieczonka	AGH- University of Science and Technology	Poland	lukasz.pieczonka@agh.edu.pl	ultrasound, nonlinear ultrasound, active thermography, modeling, system development

* Please add as many rows as needed

Mahesh R.	Perumal	Indian Institute of Technology Madras	India	mrp0559@gmail.com	Eddy current testing, modeling, system development
Marco	Laracca	University of Cassino and Southern Lazio	Italy	m.laracca@unicas.it	ECT; Ultrasound, sensor development and testing, metrological characterization, signal processing
Mariana	Burrowes	Federal University of Rio de Janeiro	Brazil	mariana@metalmat.ufrj.br	ultrasonic testing, reliability studies, modelling, NDT simulation, Modelled POD curves, Simulated POD curves, statistical analysis applied on NDT and data analysis
Miroslaw	Witos	Air Force Institute of Technology (AFIT)	Poland	miroslaw_witos@o2.pl	electromagnetic methods of NDT and SHM, SHM, measurement, signal analysis, expert systems, active control of material fatigue, integration of NDT and SHM method
Mohammad	Ghasr	Missouri University of Science and Technology	USA	mtg7w6@mst.edu	Microwave and millimeter-wave NDT, Real-time imaging systems
Mohammad	Ghasr	Missouri University of Science & Technology (S&T)	USA	M.T.Ghasr@mst.edu	Microwave and millimeter-wave NDT, Real-time imaging systems
Mojtaba	Fallahpour			mojtabafallahpour@gmail.com	
Mónica P.	Arenas	Federal University of Rio de Janeiro/Université libre de Bruxelles	Brazil	monicarenas4@gmail.com	eddy current, ultrasound, modeling, system development, real time measurements, machine learning
Naoya	Kasai	Yokohama National University	Japan	n-kasai@ynu.ac.jp	Eddy current testing, Magnetic flux leakage testing,Probe &system development, Sensor with optic fiber
Natalia	Sergeeva-Chollet	CEA LIST, Centre de Sacalay	France	natalia.sergeeva-chollet@cea.fr	eddy-current, material characterization, magnetoresistive sensors
Noritaka	Yusa	Graduate School of Engineering, Tohoku University	Japan	noritaka.yusa@qse.tohoku.ac.jp	electromagnetic nondestructive evaluation, eddy current, microwave, probability of detection
Octavian	Postolache		Portugal	octavian.postolache@gmail.com	
Peng	Xu	Nanjing University of Aeronautics and Astronautics	China	xupeng@nuaa.edu.cn	eddy current testing, MFL, defect evaluation
Pierre-Yves	Joubert	IEF, CNRS UMR 8622, Univ Paris	France	pierre-yves.joubert@u-psud.fr	eddy current sensors, eddy current imaging devices, electromagnetic sensors, electromagnetic NDE of materials including electrically conducting material dielectric material, organic material. Non contact sensing, sensor array, flexible sensors
Pingjie	Huang	Zhejiang University	China	huangpingjie@zju.edu.cn	eddy current, ultrasound, terahertz science and technology, modeling, data mining, computer control system, system development, etc.
Radislav	Smid	Czech Technical University in Prague	Czech Republic	smid@fel.cvut.cz	EC, non-linear ultrasound, electrical impedance tomography, ultrasonic guided waves, SHM, signal processing&analysis
Reza	Zoughi	Iowa State University	USA	rzoughi@iastate.edu	Microwave and millimeter wave NDT&E
Robert	Ward	Baker Hughes General Electric	USA	robert_ward@ge.com	ultrasound and eddy current devices, probes and total solutions
Roberto	Miorelli	CEA LIST, Centre de Sacalay	France	roberto.miorelli@cea.fr	electromagnetics modeling,ML & AI,magnetostatic, EC,microwaves,terahertz,infrared thermography,inversion
Roberto	Montanini	University of Messina	Italy		
Rosario	Morello	University Mediterranea of Reggio Calabria	Italy	rosario.morello@unirc.it	active and passive thermography; pulsed thermography; lockin-thermography; eddy current thermography
Ruqiang	Yan	Xi'an Jiaotong University	China	ruqiang@seu.edu.cn	Structural Health Monitoring, system modeling, signal processing

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Sergey	Ivashov	Bauman Moscow State Technical	Russia	sivashov@rslab.ru	microwaves (holographic subsurface radars)
Serdar	Savas	GE Marmara Technology Center	Turkey	serdar.savas@ge.com	
Samir	Trabelsi	US National Poultry Research Center	USA	Samir.Trabelsi@ARS.USDA.GOV	Ultrasonic, Eddy Current, Computed Tomography, Infrared, Digital Thread, Automation, ADR, AI in aerospace
Satish	Udpa	Michigan State University	USA	udpa@egr.msu.edu	Instr, NDE, Magnetostatic Methods, EC, Microwave Methods, Radiography, Ultrasound, Image and Signal Processing, Pattern Recognition
Shuncong	Zhong	Fuzhou University	China	sczhong@fzu.edu.cn	terahertz pulsed imaging, optical coherence tomography, ultrasound, EC, infrared thermography
Songling	Huang	Tsinghua University	China	huangsling@tsinghua.edu.cn	oil and gas pipeline defects in-line testing, magnetic flux leakage testing, electromagnetic ultrasonic guided wave testing, and eddy current testing
Telmo	Santos	Universidade Nova de Lisboa	Portugal	telmo.santos@fct.unl.pt	EC;EC probes design;Air coupled ultrasound;Termography;Material characterization;Numerical simulation for NDT;system development
Theodoros	Theodoulidis	University of Western Macedonia, Depart Mechanical Eng	Greece	theodoul@uowm.gr	EC, modeling, industrial nondestructive inspections
Tiago	Rocha	Instituto de Telecomunicações	Portugal	t.rocha@gmail.com	
Timothy	Bigelow	Center for Nondestructive Evaluation, Iowa State University	USA	bigelow@iastate.edu	Ultrasound; Eddy Current; Microwave; In-line monitoring of metal additive manufacturing technologies
Joseph (Toby)	Case		USA	toby.case@aero.org	ultrasound, microwaves, radiography, reconstruction, system development, signal and image processing
Tomasz	Chady	West Pomeranian University of Technology	portugal	tchady@zut.edu.pl	eddy current, multifrequency excitation and spectrogram ECT, digital radiography, THz inspection, system development, ADR, inverse problem, MFLT, residual magnetization, Barkhausen noise, composite inspection, modeling.
Toshihiro	Ohtani	Shonan Institute of Technology	Japan	ohtani@mech.shonan-it.ac.jp	ultrasound
Toshiyuki	Takagi	Institute of Fluid Science, Tohoku University	Japan	takagi@ifs.tohoku.ac.jp	
Wuliang	Yin	University of Manchester	UK	wuliang.yin@manchester.ac.uk	Eddy current;Tomography;Magnetic;Electromagnetic modelling
Weixi	Chen	Tohoku University	Japan	wchen@karma.qse.tohoku.ac.jp	
Weijuan	Wang	Japan Power Engineering and Inspection Corporation	Japan	cheng-weiying@japeic.or.jp	eddy current, radiography, modeling, system development, etc.
William (Cy)	Wilson	NASA Langley Research Center	USA	william.c.wilson@nasa.gov	microwaves, Surface acoustic waves, and SHM, but I am interested in all NDE; thermography, Terahertz, EC, ultrasound, microwaves, radiography, modeling, system development
Xiaokang	Yin	China University of Petroleum (East China)	China	xiaokang.yin@upc.edu.cn	SHM; signal processing; finite element
Yang	Ju	Nagoya University	Japan	ju@mech.nagoya-u.ac.jp	Microwaves
Yimming	Deng	Michigan State University	USA	dengyimi@egr.msu.edu	electromagnetic NDE, acoustic methods, diagnosis and prognosis, data analytics, modeling
Yunze	He	National University of Defense Technology	China	hejicker@gmail.com	eddy current, thermography, acoustic emission, system development, etc.
Zandong	Han	Tsinghua University	China	hanzd@tsinghua.edu.cn	eddy current, ultrasound, testing instrument

* Please add as many rows as needed

Zheng	Liu	University of British Columbia	Canada	zheng.liu@ieee.org	

TC mission – field of expertise (max. 1000 char. Including spaces)

The Nondestructive Evaluation and Industrial Inspection (TC-NDE&II) Technical Committee will concentrate on the following scopes:

- Develop, promote, and support research and development efforts on methods and systems for design, optimization and characterization of nondestructive evaluation and industrial inspection measurements, instruments, devices and applications.
- Promote the development and applications of cutting-edge nondestructive evaluation techniques for materials characterization and structural and industrial inspection.
- Promote and support the development of relevant standards for different Nondestructive Evaluation and Industrial Inspection techniques.
- Become the liaison, facilitate and promote collaboration among the users and developers of different Nondestructive Evaluation and Industrial Inspection (NDE&II) techniques and relevant IMS Technical Committees (TC), other IEEE Societies, councils, and industry.
- Foster interactions that lead to technical innovations that solve industrial applications
- Synergistically facilitate interactions between researchers and industry
- Collaborate more with synegistic IEEE confences such as I2MTC

TC meetings in the reporting period(*)

Date (dd/mm/yy)	Online / Face2Face	Attendance (number)	Information sent within 4 months to (Yes/No) TC Members	Chair of TSAC	IM Magazine	Other (specify)
21/05/2025	F2F	09	Yes	No	No	No

Minutes of the yearly meeting (separate file)[1]:Y **NDEaII_I2MTC Meeting -05-2025**

Participation in Society sponsored Events (Conferences, Symposia, Workshops) (*)

Name of the Event	Starting date (event) (dd/mm/yy)	Ending date (event) (dd/mm/yy)	Date Partecipation (dd/mm/yy)	Type of participation (Yes/No) Sponsorship	Session	Tutorial	Other (specify) [2]

[1] Yes/No, date of the yearly meeting;

[*] Please add as many rows as needed

I2MTC 2023	20/05/2024	23/05/2024		Yes	Track: Instrumentation and Measurement for Non-Destructive Testing and Evaluation (IMNDE) Tutorials: TECHNICAL PAPER PUBLISHING REVIEW PROCESS GUIDELINES AND TIPS FOR AUTHORS, EDITORS AND REVIEWERS R. Zoughi

Involvement in standard development(*)

Standard	Working Group	Revision	Activity in the reporting period, including dates	Notes, attendance
P1541.7	*Smart Transducers and Radio Frequency Identification*	0	CO-sponsor with TC-09 Sensor Technology approved as IEEE SA Standards Committee, TC-01 is secretary	

[2] For example, Involvement in reviewing papers (and indicate approximate number of paper reviews for the listed event)

* Please add as many rows as needed

	(RFID) for Industrial Internet of Thing (IIOT)	
SASB P&P approval	*TC-01 IEEE SA Standards Committee*	Recieved P&P Approval need to act on next step recieve approval for IEEE SA Standards Committee
Active Microwave Thermography (AMT)	*TC-01 IEEE SA*	Developing AMT Guide

Participation in the development of Society Educational Programs(*)

Program name	Involvement of chapters and sections	Activity in the reporting period, including dates	Notes, attendance

Other Activities (tutorials, teaching, career, cooperation, publications, joint activity with chapters or sections) (*)

Type of activity	Starting date (dd/mm/yy)	Ending date (dd/mm/yy)	Activity in the reporting period	Notes, attendance

Recommended candidates(*)

Type (ADCOM, Fellow, Award –specify-)	First Name	Second Name	Family Name	Affiliation /Address	Motivation

* Please add as many rows as needed

TC operating Plan: near-term plans for the upcoming year, including scheduled meetings, activities, and so on (max. 1000 char. Including spaces)

The TC-NDE&II aims to provide the focus for its members' technical interests. It is therefore paramount to invite and encourage members to participate. Thus, TC-NDE&II can provide collaboration opportunities spearheading the growth of instrumentation and measurement within the nondestructive testing and evaluation research and development area. The TC-NDE&II is a structure for IEEE IMS members working on sensors and actuators development and testing, measurement techniques, signal processing, microwaves, electromagnetic field, ultrasounds (and others) to join and focus their activities in the nondestructive inspection innovation and technical development.

In the near future TC-NDE&II will continue:

- One or two sessions on nondestructive testing in every International Instrumentation and Measurement Technology Conference (I2MTC), the flagship conference of the IEEE Instrumentation and Measurement Society.
    - Two sessions scheduled for I2MTC 2026
- Have the TC-NDE&II committee manage and supply the Associate Technical Program Chair for the track "Instrumentation and Measurement for Non-Destructive Testing and Evaluation (IMNDE)" for I2MTC conference. This has become a best practice and hopefully will be followed by other TCs.
    - On track for I2MTC 2026
- Have the TC-NDE&II committee supply the Chair of the oral sessions for “Instrumentation and Measurement for Non-Destructive Testing and Evaluation (IMNDE)” track
    - On track for I2MTC 2026
- At least at every International Instrumentation and Measurement Technology Conference (I2MTC), the TC-NDE&II will organize a face-to-face meeting.
    - On track for I2MTC 2026
- Tutorials at a national (or even more limited) level are organized to promote and encourage research in the field.
    - On track for I2MTC 2026
- Representation during International Workshops to promote and facilitate the exchange of knowledge between participants
- Meetings will be held to form a Working Group to forecast the role TC-NDT&E can play in the development of IEEE Standards with a major impact in industry

* Please add as many rows as needed

TC operating plan: long term vision from 2-5 years out, based on IMS Strategic Plan, including areas of strength , areas for improvement, how is the subject area going to change, planned actions for lifting achievement succession plans etc. (max. 1000 char. Including spaces)

As any Technical Committee of the IEEE Instrumentation and Measurement Society, the Technical Committee on Nondestructive Testing and Evaluation (TC-NDE&II) is expected to define and implement the technical directions of the society.

- *Great challenges for new instrumentation and new measurement techniques* - Recently, NDT&E has seen unprecedented development and significant growth through advanced instrumentation and materials as well. The rapid technological progress during the past half-century, especially in areas like aerospace, pipelines, bridges, nuclear plants or refineries, where the high level of risk involved and strict precautions are mandatory, together with nowadays ability to interface with computers, has driven a dramatic impact in NDT technology. NDT became, in fact, the fastest growing technology from the standpoint of uniqueness and innovation.
- *Societal importance of nondestructive testing and evaluation* - Nondestructive testing and evaluation has a tremendous impact in public security and safely technology development. NDT techniques can be used to monitor the integrity of an item or structure throughout its design life. NDT&E is paramount in everyday life and is necessary to assure safety and reliability.
- *To provide technical resources and collaboration opportunities* – there are a large group of scientists, industrial technologists and students belonging to the IEEE Instrumentation and Measurement Society, which have a recognized proficiency in the specific field of nondestructive testing and evaluation. Currently, one or two special sessions on nondestructive testing take place in every International Instrumentation and Measurement Technology Conference (I2MTC), the flagship conference of the IEEE Instrumentation and Measurement Society, dedicated to advances in measurement methodologies, measurement systems, instrumentation, and sensors in all areas of science and technology, to attest the growing importance of the subject. By pursuing TC best practices, it is expected that this TC on nondestructive evaluation and Industrial Inspection will be an important benefit of membership, allowing further collaboration and communication within a subset of I&M practitioners.
- *Need to better engage our industrial partners* – The focus of the TC should be on impactful industrial opportunities that industry can't solve on their own.

TC convergence, synergy, cooperation with other TC, from I&M or other societies (max. 1000 char. Including spaces)

Being nondestructive testing and evaluation, an interdisciplinary and multidisciplinary, possible collaborations are foreseen with other TCs including:

TC-6 - Emerging Technologies in Measurements;
TC-7 - Signals And Systems in Measurement;
TC-9 - Sensor Technology;
TC-17 - Materials in Measurements;
TC-19 - Imaging Measurements and Systems;
TC-20 - Transportation Systems in Measurement.

Collaboration can include special issues publications.

* Please add as many rows as needed

The membership of the new TC-NDE&II is expected to be diverse too, again due to the broad NDE&II facet.
Other benefits may include:

- Invited sessions organization within IMS co-sponsored conferences and workshops;
- Special Issues for IEEE publication
- Publications of books
- Organizing Special Sessions in IEEE IMS co-sponsored conferences
- Other member development activities
- Collaborating with American Society Of Nondestructive Testing Society on co-sponsored conferences and workshops as well as publications

Comments/Suggestions (max. 1000 char. Including spaces)

* Please add as many rows as needed