

GIF event 2021 GIF report 2021

GIF reports 2021-1



Status/Directions

- <u>2020 Annual Report</u> (At the <u>top page</u> for chapter by chapter version with news letter)
- <u>2018 GIF Symposium</u> (We are planning Forum GIF INDUSTRY 2022)
- GIF R&D Outlook for Generation IV Nuclear Energy Systems: 2018 Update
- Handbook of Generation IV Nuclear Reactors, 2016 (Presently updating)
- <u>The High Temperature Gas-Cooled Reactor, 2020</u> (M. Fütterer, et al., Reference Module in Earth Systems and Environmental Sciences, https://doi.org/10.1016/B978-0-12-409548-9.12205-5)

Safety & Security (Risk & Safety, PRPP)

- Basis for the Safety Approach for Design & Assessment of Generation IV Nuclear Systems (revision, 2 July 2021) (At the GIF Publications page)
- Sodium Fast Reactor: Safety Design Guidelines on Safety Approach and Design Conditions (SA SDG),
 2020
- LFR Safety Design Criteria (SDC), 2021
- <u>Lead-cooled Fast Reactor (LFR) System Safety Assessment, 2020</u>
- An Update of the GIF Proliferation Resistance and Physical Protection White Papers for the Six Gen IV Systems, 2019 (Cipiti, B. et al, 9th INMM/ESARDA/INMMJJoint Workshop. See PRPPWG-BIBLIOGRAPHY Rev. 8 April 2021)
- The GIF Proliferation Resistance and Physical Protection methodology applied to GEN IV system designs, 2019 (Cheng, L. et al., ESARDA'19: ESARDA Symposium 2019 - 41st Annual Meeting See PRPPWG-BIBLIOGRAPHY Rev. 8 April 2021)

GIF reports 2021-2



Economics, Flexible use, Values

- Advanced Nuclear Technology Cost Reduction Strategies and Systematic Economic Review
- Nuclear Energy: An ESG Investable Asset Class
- <u>Position Paper on Flexibility of GEN IV Systems</u> (see <u>references</u> of EMWG)
- Impact of Increasing Share of Renewables on the Deployment of Generation IV Nuclear Systems,
 2018
- Contributions for "<u>Flexible Nuclear Energy for Clean Energy Systems</u>" and
 "<u>Pathways to net zero using nuclear innovation</u>". (and message for COP26)

Demonstration/Deployment, Networking

- GIF workshop on R&D Infrastructures needs and opportunities, Workshop on Advanced Manufacturing, 2020
- R&D Infrastructure Task Force Final Report, 2021
- <u>ETWG activities</u> (including social media platform)
- GIF Acronyms

Viva GIF HP, everything here.

2021 GIF event list



2021

Open + Semi-open events

4/28 20th Anniversary Celebration Special webinar (Tele, See GIF HP, Watch WEBCAST, Introduction slide, agenda)

4/30 Pitch Your Generation IV Research Competition (Announcing the three winners)

11/8, 9 GIF AMME Workshop on Advanced Manufacturing

(Semi-open for experts via NEA AMME-TF TS, =AMME-network)

GIF members events

4/14 GIF extra EG/PG meeting (Tele, See GIF portal)

5/17 GIF EG-45 meeting (Tele, See GIF portal for 17-21)

5/18 GIF Common SSC report session on EG-45/PG-51

5/19 GIF Common WG/TF/SIAP report session on EG-45/PG-51

5/20 GIF PG-open session / Country reports

5/21 GIF PG-closed session

6/29,30 15th GIF-IAEA interface meeting (Tele)(See IAEA HP) (GIF chairs attended this meeting to communicate)

10/6 GIF extra EG/PG meeting (Tele, See GIF portal)

10/18,19,20,27,28 Virtual GIF EG-46,PG-52 meeting (Tele, See GIF portal)

2022

5/16-20 EG/PG week hopefully at Sydney

10/3-7 GIF- Forum Industry 2022 (Colocation with G4SR-4: to be confirmed) GIF Industry 2022

2021 GIF relevant event list



GIF relevant events

- 5/21 INPRO-IAEA and GIF Collaboration and Current Activities (Hideki KAMIDE) at 18th INPRO Dialogue Forum on Partnerships for Nuclear Development and Deployment (IAEA):

 Day4 Session IV: Partnerships for Innovative Nuclear Technology
- 5/26 SMR-AMR-MicroReactors:

 Global New Paradigm for Nuclear Reactors. <u>A vision from the Generation IV International Forum</u> (GIF) (Gilles RODRIGUEZ) at STRONG KOREA FORUM 2021
- 6/23 GIF interview: Allan Carson of WNA interviews Gilles Rodriguez at video interviews with innovation leaders of WNA Forum on Nuclear innovation: Thinking Outside the Dome
- 7/29 <u>Generation-IV Reactor Systems and International Cooperation through GIF</u> (Hideki KAMIDE) at New Technologies in Power Plants and Fuels session of Nuclear Trade and Technology Exchange (NT2E)

9/28,10/14

Overview of the Generation IV International Forum (Hideki KAMIDE)

<u>Status of the SFR technology developments in the Generation-IV International Forum: Reactor Design & Fuel R&D</u> (Gilles Rodriguez, Frédéric Serre)

Sodium Cooled Fast Reactor Technologies (Robert [Bob] Hill)

at [Merits and Viability of Different Nuclear Fuel Cycles and Technology Options and the Waste Aspects of Advanced Nuclear Reactors: Meeting #10, #11] of The National Academies of Sciences

- 10/12 Guest Editorial by Gilles Rodriguez for ASME J. of Nuclear Rad Sci.
- **10/25** Open letter to COP26 Chair: "Nuclear energy is ready to contribute to global net zero", (Hideki KAMIDE) also see WNN news
- 11/30-12/2: GIF booth/workshop at World Nuclear Exhibition (WNE)





Our Vision

To contribute to a sustainable global energy future providing reliable, safe and affordable clean, CO2 free, electricity and heat for the world's benefit



Our Mission

To develop Generation IV nuclear energy systems that will deliver improved sustainability, economics, nuclear safety, security & proliferation resistance



What GIF brings

Expertise | Collaboration | Excellence



GIF's Current Strategic Themes

- Design and R&D of six types of Gen IV reactors
- International standardization of Safety Design and apply into Regulation
- Integrate Gen IV systems (flexibility, economics) and renewable energy systems in clean energy systems
- Enhance International R&D collaboration
- Attract a younger generation to the work of GIF and its goals

Great contributions by GIF colleagues