

### DDRAFT MEETING MINUTES

Phoenix, AZ. Tuesday, June 24, 2025. 14:30 to 15:30 MST.

Sheraton Downtown, Encanto B (Second Level).

Agenda Item	Discussion	Led By
1	Call to order / Opening comments / Introduction of members and guests	Hwang
	<ul style="list-style-type: none"> <li>– Meeting called to order at 14:35 MST by chair.</li> <li>– Members present introduced themselves; attendance sheet circulated (and attached to appendix).</li> </ul>	
2	Review of agenda	Hwang
	<ul style="list-style-type: none"> <li>– Approved by consent.</li> </ul>	
3	Approval of past committee meeting minutes	Inamdar / Hwang
	<ul style="list-style-type: none"> <li>– Minutes of USNC/IIR committee meeting during the 2025 Winter Conference in Orlando, FL approved unanimously by the committee.</li> </ul>	
4	Review of action items from previous committee meeting <ul style="list-style-type: none"> <li>– USNC IIR would like to revise the guideline on LCCP air-conditioning and heat pumps, and develop a new guideline on LCCP for commercial refrigeration equipment.</li> </ul>	Hwang
5	Updates from the IIR Director	Allouche
	<ul style="list-style-type: none"> <li>– Dr. Yosr Allouche joined remotely using the Zoom link, though it was very late in Paris time (thank you, Dr. Allouche!)</li> <li>– Since the US has been awarded the 2031 ICR, the lack of dues paid from the USNC is concerning to the head office.</li> <li>– Dr. Ziviani forwarded 2024 invoices to ASHRAE and requested ASHRAE staff to release funds from Purdue's account at ASHRAE.</li> <li>– Dr. Allouche highlighted the risk of the 2031 ICR not occurring due to delinquent account from the US.</li> <li>– The <a href="#">World Refrigeration Day</a> was a very successful event.</li> </ul>	
6	Financial status report	Ziviani
	<ul style="list-style-type: none"> <li>– Financial status summarized by Davide Z in attached report (thank you, Davide!).</li> </ul>	
7	Membership status report	Skye
	<ul style="list-style-type: none"> <li>– Leverage ASHRAE membership to increase participation in IIR—perhaps a joint membership of ASHRAE and IIR?</li> <li>– Lorenzo C and Bill M to work with ASHRAE's Refrigeration Committee to explore ways to leverage ASHRAE activities for IIR. Doug Scott is a member of RAC and can also explore more collaboration between ASHRAE and IIR.</li> </ul>	
8	USNC-IIR status and future	All
	<ul style="list-style-type: none"> <li>– Dr. Allouche emphasized that IIR is both an intergovernmental organization and a technical/scientific body; member countries should support and back the organization rather than solely expect to receive benefits.</li> <li>– IIR is further developing its open access strategy.</li> </ul>	

	– To develop membership packages with a focus on data, statistics, policy, and networking services.	
9	Upcoming commission meetings	Fricke
	– IIR Commission E2 met virtually on January 20, 2025.	
10	Technical programs	
	<ul style="list-style-type: none"> <li>– Purdue Herrick Conference is scheduled for July 12 to 16, 2026.</li> <li>– Bracing for lower attendance due to notification from Purdue’s international office that visa invitation letters cannot be issued by Herrick Laboratories staff alone. A strict vetting process will be implemented especially for speakers from China.</li> <li>– USNC course ideas: <i>Dynamic Modeling and Control of Systems, High-temperature Heat Pumps, Data Center Cooling...</i></li> <li>– Dr. Craig Bradshaw and Dr. Stefan Elbel to coordinate on course outlines to straw poll among USNC members.</li> <li>– Title and abstract for short courses by Thanksgiving 2025.</li> <li>– Would like to finalize speakers by 2026 Winter Conference in Las Vegas, NV.</li> <li>– 2031 ICR awarded to the US; almost 30 years after the last US-based conference in 2003.</li> <li>– Location will be Marriott Marquis San Diego Marina in San Diego, CA.</li> <li>– August 2 to 8, 2031; budget \$2 million.</li> <li>– Chairs: Prof. Davide Ziviani (Purdue), Prof. Brian Fronk (PennState), Prof. Craig Bradshaw (UIUC).</li> <li>– Prof. Eckhard Groll will be the honorary chair.</li> <li>– <a href="#">2025 TPTPR</a> had about 90 attendees and 43 papers presented, selected out of 67 abstracts.</li> <li>– There were 2 plenary sessions and 4 speakers: Prof. Vikrant Aute, Dr. Mark McLinden, Prof. Mark Shiflett, and Prof. Claudio Zilio.</li> <li>– The small nature of the conference allowed better and closer interaction between attendees.</li> <li>– Timing and organization of next edition of the conference is yet undecided.</li> </ul>	
11	Announcement of next committee meeting	Hwang
	Tentatively in same time slot during the 2026 Winter Conference in Las Vegas, NV.	
12	Adjournment	All

#### USNC–IIR Officers 2024 to 2028:

- Chairman: Yunho Hwang (*University of Maryland*).
- Vice-chair: Stefan Elbel (*Creative Thermal Solutions and TU Berlin*).
- Secretary: Harshad Inamdar (*Rheem Manufacturing Company*).
- Treasurer: Davide Ziviani (*Purdue University*).
- Webmaster: Hanlong Wan (*Pacific Northwest National Laboratory*) (–continuing officer).
- Membership: Harrison Skye (*NIST*).

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APPENDIX A  
Meeting Sign-in Sheet.



TC Sign-in Sheet

Meeting Info: USNC - IIR Date: June 24, 2025

Name	Affiliation	Email	Member (Voting, Corresponding, PCM, or Guest?)	YEA Member? (Yes/No)	Int'l Member? (Yes/No)
Haoxian Liu	Purdue Univ.	liu1460@purdue.edu	IIR member		N
David Zimen	Purdue Univ.	dzimen@purdue.edu	Treasurer		N
Harshad Mandekar	ASCEM	Harshad.Mandekar@asce-m.com	Secretary	N	N
Yunho Hwang	U. of Maryland	yhwang@umd.edu	Chair	N	N
Hanlong Wen	PRRL	hanlong.wen@prml.gov	webmaster		
Susanne Dorman	CIA Group	Susanne.dorman@ciagroup.org	IIR member	N	N
M. Neshan	ArnegUSA	mesnane@gmail.com	VM	N	Yes
Cheng-Yi Lee	VMD	cyee@umd.edu	PCM	N	N
WIKKANS AMR	UMD	wikrout@umd.edu	Gaur	N	N
BRIAN FELICE	ORNL	BRICKS@ORNL.GOV	MEMBER	N	N

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**APPENDIX B**  
Financial Status.

1. Action Items 2024 ASHRAE Annual Indianapolis related to Financial Report:

- [ONGOING] DZ 8/12/2024: Davide Ziviani started as Treasurer of USNC/IIR. During the June 2024 meeting in Indianapolis, we had a discussion with Kashif Nawaz, Brian Fricke, Payam Delgoshaei (DOE BTO). Waiting for the DOE response on funding.
- [ONGOING] Brian Fricke possible international funding through ORNL.
- [ONGOING] Government engagement (benefits/needs/interest; what can IIR offer): discussions between IIR/DOE facilitated by ORNL.
- [TODO] Explore World Refrigeration Day & meeting in June after statutory meeting (details to come)
- [TODO] Set up a meeting with NIST and IIR

2. Current Balance

The most recent USNC/IIR financial statement as of 2/10/2025 is attached to this report. In summary, the financial status is as follows:

As of 1/31/2025, the USNC/IIR organization had total net assets and equity in the amount of \$36,345.26. This includes the \$10k contribution from ASHRAE, but missing NIST and DOE.

3. Financial Activities

*USNC/IIR 2019 dues (2019-2020)*

- ASHRAE: \$10k received on 8/31/2019 for 2019 dues
- NIST: \$10k received on 1/21/2021 for 2019 dues (Sep. 1, 2019 – Aug. 31, 2020)
- DOE: \$24k received on 6/30/2020 for 2019 dues (Oct. 1, 2019 – Sep. 30, 2020)

*USNC/IIR 2020 dues (2020-2021)*

- ASHRAE: \$10k received on 7/01/2020 for 2020 dues
- NIST: \$10k received on 1/21/2021 for 2020 dues (Sep. 1, 2020 – Aug. 31, 2021)
- DOE: \$24,000 received on 6/30/2021 for 2020 dues (Oct. 1, 2020 – Sep. 30, 2021)

*USNC/IIR 2021 dues (2021-2022)*

- ASHRAE: \$10k received on 7/01/2021 for 2021 dues
- NIST: \$10k payment was made on 4/07/2021 for 2021 dues (Sep. 1, 2021 – Aug. 31, 2022). Initially, the funds were credited to a wrong account within ASHRAE, but the funds were transferred to the USNC/IIR account on Jan. 1, 2022
- DOE: \$24,000 Invoice for 2021 dues (Oct. 1, 2021 – Sep. 30, 2022) was sent to ORNL on June 21, 2022 – no payment received as of 5/31/2023. Brian Fricke and Kashif Nawaz stated that payment is now being processed.

*USNC/IIR 2022 dues (2022-2023)*

- ASHRAE: \$10k received on 1/30/2023 for 2022 dues.
- NIST: \$10k payment received on 5/31/2022 for 2022 dues (Sep. 1, 2022 – Aug. 31, 2023).

- DOE: Stefan will prepare and send \$24k invoice for 2022 dues (Oct. 1, 2022 – Sep. 30, 2023) to Kashif Nawaz and Brian Fricke. No payments for 2022

#### UNSC/IIR 2023 dues (2023-2024)

- Category 3
- ASHRAE: Payment received.
- NIST: \$10k payment invoiced on 4/24/2023 for 2023 dues (Sep. 1, 2023 – Aug. 31, 2024). New contact at NIST is Dr. Greg Linteris. Payment is being processed as per communication on 5/30/2023.
- DOE: no action yet (invoice should be sent around June 2024). Missing 2021, 2022, and 2023 payments (\$72,000).

#### UNSC/IIR 2023 dues (2024-2025)

- Category 3
- ASHRAE: \$10,000 payment received as of 1/31/2025
- NIST: \$10,000 pending payment as 2/11/2025
- DOE: \$96,000 outstanding contribution (2021,2022,2023, 2024)
- Purdue UNSC/IIR Short-Course: TBD. Purdue team wrapping up invoicing.

#### Payments of UNSC/IIR dues to IIR - Paris

- \$34,618.12 on 5/31/2019 for 2019 dues
- \$34,594.80 on 7/27/2020 for 2020 dues
- \$38,588.15 on 5/18/2021 for 2021 dues
- \$33,805.35 on 4/28/2022 for 2022 dues
- (32,643 EUR) \$35,525.44 on 10/23/2023 for 2023 dues
- Received invoice (34,248 EUR) ~\$35,323.39 on 4/2024 for 2024 dues

#### 4. Future Financial Activities: Expected Balance for 2025

		Notes
Starting 1/1/2025	\$ +36.3k	USNC/IIR Balance
2024 dues to Paris	\$ -35k	To be paid in Spring 2025
Purdue UNSC/IIR Short-Course	\$ TBD	Purdue working on wrapping up finances
ASHRAE 2025 dues	\$ +10k	Received
NIST 2025 dues	\$ (+10k)	Invoiced, not paid yet
DOE 2021/22 dues	\$ (+24k)	Invoiced, not paid yet
DOE 2022/23 dues	\$ (+24k)	
DOE 2023/24 dues	\$ (+24k)	
DOE 2024/25 dues	\$ (+24k)	
Expected Misc. Adm. Fees FY2025	\$ -2k	
Expected Balance 03/31/2025	\$ +8k	Includes NIST contribution



Respectfully submitted,  
Davide Ziviani

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